BETTER FARMING METHODS

AUGUST 1959
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SERVING COUNTY AGENTS, VO-AG TEACHERS, AND OTHER AG LEADERS

CONTRACT FARMING

How will it affect the county agent's job?

For the national viewpoint on this question we asked Administrator Ferguson to prepare the article on page 16. You'll find the local viewpoint in another article on page 36.

The Man Behind NACAA

Orville Walker, president of the National Association of County Agricultural Agents, is living proof that the small, quiet man can be a "strong man" by doing and by showing.

BONUS FEATURE: But Believe Me, Mister! . . . p. 20

with SHIPPING FEVER the proof is in TRILAFON

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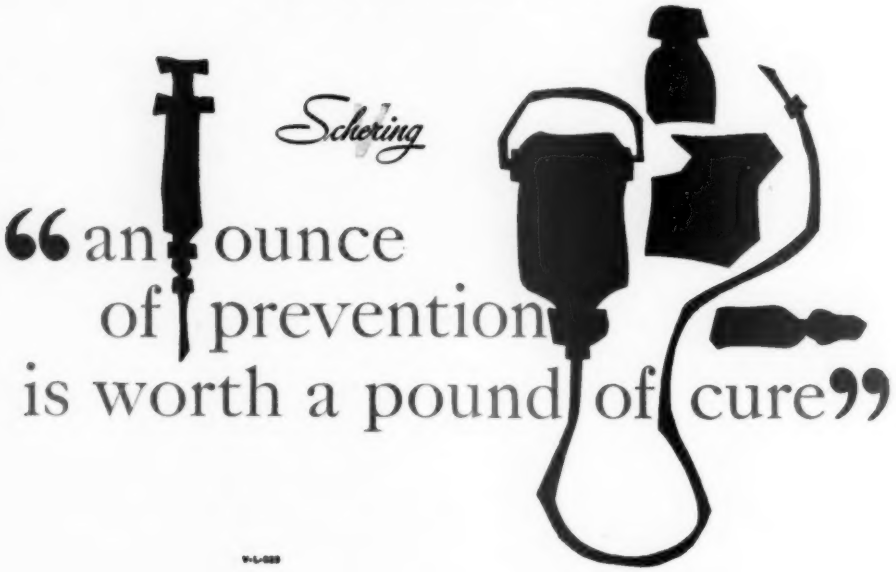

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NH NEW HOLLAND

"First in Grassland Farming"

BETTER FARMING METHODS

AUGUST, 1959

Vol. 31 No. 8

PROFESSIONAL MAGAZINE FOR LEADERS WHO TRAIN AND ADVISE FARMERS

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Hugh Thompson
347 Madison Ave., New York 17, N.Y.
Phone Murray Hill 3-1492

WESTERN ADVERTISING MANAGER
H. K. Marcott
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features

VERTICAL INTEGRATION ..... p. 16

What does Administrator Ferguson think will happen to the Extension education program under an integrated farm setup? "We'll still work with the farmer, but we will also need to work more closely with the management of the integrating firm."

BUT BELIEVE ME, MISTER ..... p. 20

This feature, "But Believe Me, Mister . . . You Can Do Things Easier With Two Hands," is about Illinois Farm Safety Specialist Ordie Hogsett who is a living example of the story he's telling. Ordie lost both hands in a corn picker accident. Now he's conducting a corn picker safety campaign.

DUROC JUDGING PICTORIAL ..... p. 34

CAN THE COUNTY AGENT SERVE INTEGRATED FARMERS? ..... p. 36

Poultry Tribune Editor Durell Davis looked into integrated poultry operations in the South to see how county agents handled the situation. Davis found that many county agents have followed a hands-off policy but are now beginning to take a more active interest in integrated operations.

COUNTY AGENTS HELPED SELL $200 MILLION PROGRAM ..... p. 40

An all-out soil fertility campaign in Georgia may easily boost income by $200 million annually

THE COMMUNITY FAIR BOOTH ..... p. 48

How should you decorate that booth at the fair this fall? With a geometric pattern of fruits, vegetables, and handiwork? Or should you plan to visualize a single idea?

"I WASN'T RAISED UP WITH MULES" ..... p. 49

Orville Walker, featured on our cover this month, used this statement to explain why he doesn't measure up to the past NACAA president in physical stature.

departments

Keeping Up In Agriculture ..... p. 6
Washington News ..... p. 10
Spotlighting Communication Methods ..... p. 22
Echoes ..... p. 24
Ideas That Work ..... p. 33
Farm Mechanics ..... p. 38
Helpful Booklets ..... p. 46
County Agent News ..... p. 52
Editorial ..... p. 54

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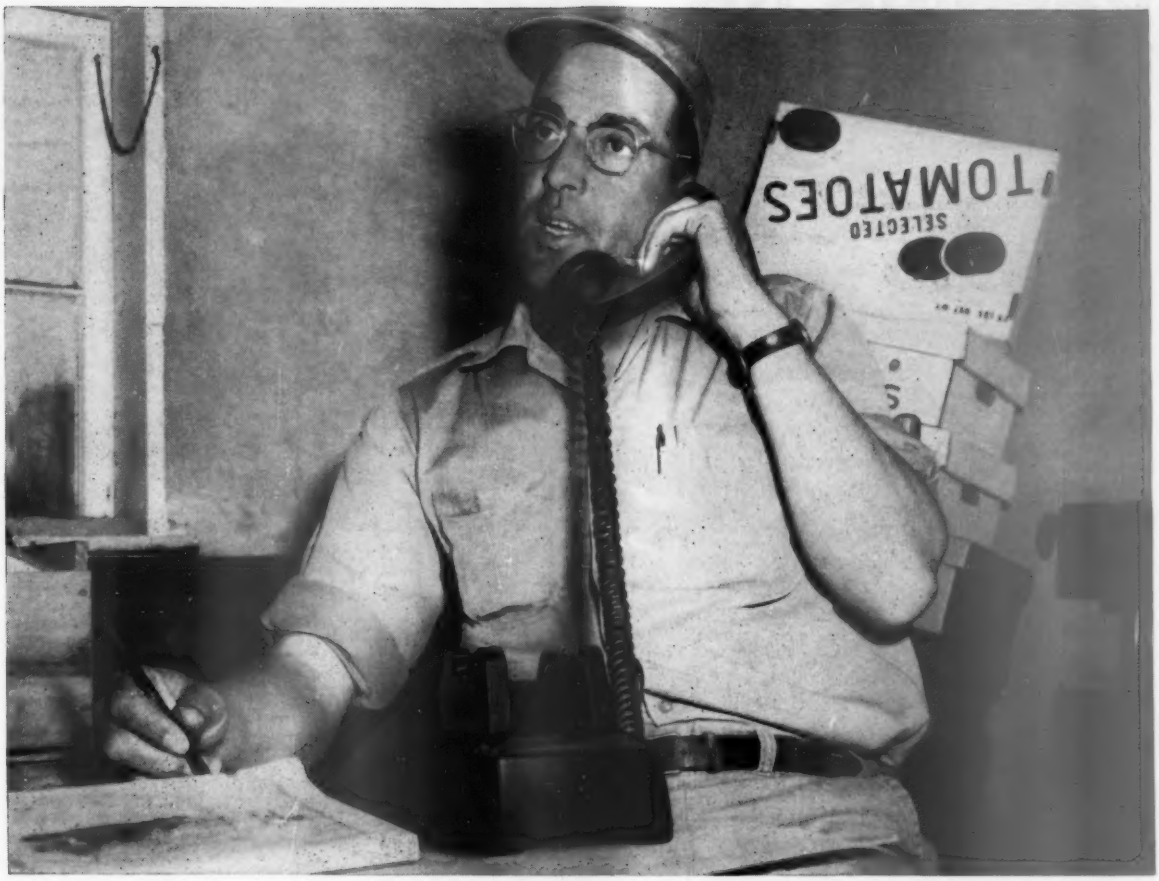

"This extension phone has brought us business we'd never have got without it"

Mrs. Rezendes has telephones in her living room and upstairs bedroom. She handles family calls and business calls that come in when Lou is away from the farm without rushing up or down stairs.

In the rush of the growing season on his Massachusetts farm, Louis Rezendes hires 40 people to help him plant, cultivate, irrigate, harvest, pack and market 135 acres of vegetables.

15 to 20 telephone calls come and go daily to keep Lou in touch with brokers in nearby cities who buy his produce.

When Lou handled these calls on the house telephone, he often found himself running back and forth like a ballplayer caught between bases. Sometimes he hurried back to the outbuildings to find a crew of men standing idle or a packing line shut down.

So Lou decided to let a telephone line do his running for him. He had an extension phone installed in the packing shed.

Now Lou can keep vegetables moving to market as fast as he takes orders. And there are more orders to take. Brokers who can't reach other growers often switch to Lou. They *know* they can reach him.

All in all, Lou figures his extension phone has returned more times its cost than any other farm tool he owns.

If you're a busy farmer, there's a good chance an extension can do the same on your farm. Just call your telephone business office.

BELL TELEPHONE SYSTEM

KEEPING UP IN AGRICULTURE

- **What's the Best One-Man Dairy Setup?**
- **Farmers are Buying More Land on Contract**
- **Two Promising New Weed-Killing Chemicals**
- **Cows Can Produce Unlimited Immune Milk**

Drive to Curtail Livestock Expansion

The National Agricultural Advisory Commission has recommended that the USDA spearhead a national educational program to acquaint farmers and ranchers with the need for avoiding over-expansion in cattle and hogs. The commission suggested that the land grant colleges and news media be invited to join in this educational program. In making its recommendation, the commission pointed out that an orderly expansion in livestock production will not only be advantageous to livestock producers, but will also provide a sound basis for increased utilization of the abundant feed grain supply.

Air-Blast Vs. Fixed-Boom Sprayer

An air-blast sprayer used properly should permit as good control of most row-crop diseases as the more widely used fixed-boom sprayer, according to USDA and Ohio scientists. Equally excellent results were obtained in comparing the efficiency of an experimental air-blast sprayer and a standard commercial fixed-boom hydraulic sprayer to apply the fungicide, maneb, on different plots of tomatoes.

New Way to Prolong Milk Storage

Vacuum-steam injection treatment improves the flavor of fresh milk and prolongs storage life, say researchers at Cornell University. Milk treated with a vacuum-steam injection is heated to 190-240 degrees, then subjected to 20 inches of vacuum. Scientists compared normal pasteurized milk (milk heated to 168 degrees F.) with the vacuum-steam treated milk. They found the vacuum treatment effective in removing some of the off-flavors due to feed or weeds. After two weeks the milk treated at 210 degrees was almost as good as when it was fresh.

Here's A Peek at Poultry Situation

Egg prices during July-September will average about 33 cents — five to six cents below a year earlier. October-December prices may average 36 cents — two cents below 1958. Broiler prices during July-September will average 18-19 cents — one cent higher than a year earlier. October-December prices are expected to be below last year's 15.6 cents. Turkey prices during August-December will average about one cent higher than last year's 23.5 cents.

What's the Best One-Man Dairy Setup?

The "double-four" herringbone milking parlor is the best arrangement for the average one-man dairy operation, according to cooperative studies by the USDA and the University of Minnesota. It will handle eight cows at a time, and is designed with the cows facing outward at an angle and standing about 30 inches higher than the operator's floor level. This arrangement requires a minimum amount of labor for handling milking units.

Drink Milk and Become Immune

Cows can produce antibodies in their udders at maximum levels during any stage of the lactation period. Up to now, it was believed that antibody production was possible only during the first few weeks after calving. Had that been true, dairy farms would have been severely limited in the amount of antibody-containing milk they could produce. The researchers say that these antibodies which remain in the milk can produce immunity to diseases in persons drinking the milk.

New Weed Killers Do Better Job

Two new weed killing chemicals, not yet available in stores, may compete with Simazine for corn weed control, according to recent University of Wisconsin research. The new materials, called Atrazine and Propazine, may do a better job than Simazine. Atrazine is especially promising as a post-emergence weed control, with the chemical applied after the corn comes up.

More Farm Land Sold By Contract

Sales of farmland by land contracts have almost doubled since 1946, according to a study by USDA. In land contract transactions, the seller deals directly with the buyer and bypasses credit institutions as a party to the sale. No mortgage is written, and the buyer does not take title to the property until his installment payments add up to a substantial portion of the selling price.

Mechanical Brain To the Rescue

Farm management specialists at North Carolina State College are using a "mechanical brain" to determine what typical farms can grow most profitably. Information about a farm is punched on cards and fed into the machine, which can make mathematical computations so quickly that hundreds of hours of labor are saved on one lengthy problem. Of course, the answer is only as good as the information about the farm and expected prices which are fed into it. The management specialists have found the "brain" very valuable in determining the most profitable combination of crops and livestock on various farms across the state.

Stainless steel proved best for handling milk in bulk

Ever since the first dairymaid slipped and fell headlong into the pool of spilled milk, dairymen have tried to devise better ways of handling milk. They found improvements, but a lot of spilled milk was cried over before they found that the real answer was to handle milk in bulk . . . with Stainless Steel.

In 1949, there were fewer than 2,000 bulk milk tanks in use . . . and those mainly in California. Then United States Steel cooperated with the University of Wisconsin and equipment fabricators in developing accepted methods for handling milk in bulk—and equipment to do the job. U. S. Steel helped to point out the advantages of this new system to dairy farmers throughout the country.

As a result, there are now over 125,000 bulk milk tanks in use that handle over one half of the milk produced for fluid consumption. If you would like information on bulk milk handling, write to United States Steel, Agricultural Extension, 525 William Penn Place, Pittsburgh 30, Pa. *USS is a registered trademark*

USS **United States Steel**

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Personal recommendations

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Corn for Silage	6	2½ tons	$6.43
Wheat	61	8½ bushels	$8.56
Oats	23	18 bushels	$7.26
Potatoes	6	48.6 bushels	$66.28
Barley	2	20.1 bushels	$17.42
Tobacco	2	161 pounds	$81.31
Hay & Alfalfa*	91	1,567 pounds	$6.36

*Based on one cutting. Results of two years' field demonstrations, run with the cooperation of farmers, on their own land, under normal conditions.

take the guesswork out of fertilizer results

How Agrico can help you plan a sound fertilizer program for your farm ...to assure you the highest return on your investment

YOUR OWN fertilizer program starts with you . . . on your farm. At your request, an Agrico trained fieldman—most are agricultural college graduates—will come out to your farm. First, he'll take an adequate number of borings for a representative soil sample. He'll note soil drainage and type, field location, size and topography. Then he'll obtain a comprehensive cropping history of your fields.

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Next, Agrico's experienced agronomists personally study your cropping history and the laboratory test results. Finally, they make sound, sensible recommendations on how and when you should fertilize and lime for best results. You'll receive a complete, detailed report of their recommendations . . . along with other valuable, timely management guides for you to follow.

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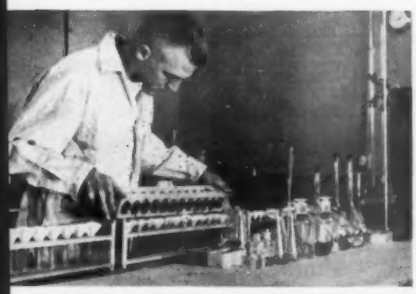
It costs only a few cents more per acre to get the *Agrico Difference*. But the results—higher crop yields and extra profits—are worth every penny. Right now, before you start drilling your Fall crops, is the best time to start your Agrico Program. See your nearby Agrico Dealer right away.



After a representative sample of your soil is taken by your local Agrico fieldman, highly-skilled Agrico soil chemists carefully analyze it for plant food content and pH level.

Based on field cropping history and soil test results, Agrico agronomists make sound, sensible recommendations to fit your individual soil, crop and management requirements.

Best returns come only when you follow the recommendations exactly, using the Agrico fertilizers specially formulated to give you best results on your farm.

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WASHINGTON NEWS

by Jay Richter

Lawmakers claim one of the big reasons they can't get together on favorable farm legislation is that major farm organizations can't agree on a basic plan for farm legislation.

Watered-Down Price Supports

That flush of enthusiasm in Congress for heaving the big farmer out of the price support program ran afoul of the influence and experience of a relatively small number of Congressmen and Senators, mostly from the South.

The result: a much watered-down ceiling on the price supports individual farmers can get on 1960 crops.

You'd be wise, however, to look beyond the immediate result at the meaning the ceiling votes hold for future Congressional action on farm programs.

Whatever the merits or drawbacks of putting a ceiling on price support loans, the fact is that it's a very good bet that a great many members of Congress voted repeatedly for ceilings at various levels without really understanding what it was all about. A great many city lawmakers who pay little attention to the technicalities of the farm program voted for the limitations simply because they thought they saw a way to put a lid on the amount of government money going to farmers.

This attitude will play an increasingly important role in farm legislation from here on out. The scrap over price support ceilings will probably be repeated next year when the present one-year limit expires.

The ceiling in effect for 1960 crops declared surplus by USDA is $50,000 per crop for any one person. But individuals can go through the ceiling either by agreeing to repay amounts over $50,000, or agreeing to cut production under rules set by USDA.

All for RD Expansion

Agriculture Secretary Ezra T. Benson's enthusiasm for expanding Rural Development Program is wholeheartedly shared by his National Agricultural Advisory Commission.

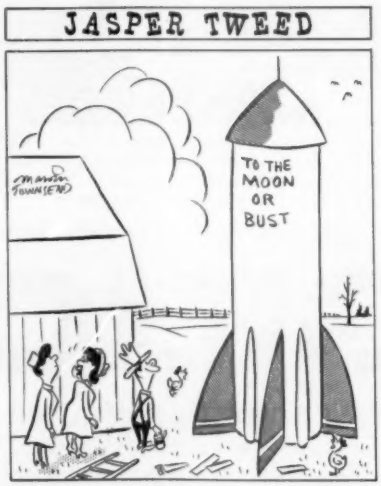
But the Administration is not, in the old slang phrase, "putting its money where its mouth is."

Here's the story:

When Benson's Advisory Commission met recently, it told him it was extremely satisfied with progress made in the RDP. The Commission announced the time was right for more aggressive expansion of the program. It suggested additional full-time leadership at the national, state, and local levels.

Extension Service officials in Washington were delighted with the endorsement of the program by the advisory group. But as for expansion with Federal funds, they explained, funds for the work in the new fiscal year's budget are exactly the same as the amounts allotted during the past three years.

We are getting a little expansion of the program through local action, one official told us. But there can't be any considerable growth without more funds.



"Jasper is trying to make things more interesting for the college boys he's hiring this summer."

Can't Separate Research from USDA

Looks like USDA wins again this year in its running fight to keep the enthusiasm of some members of Congress from upsetting the balance of the Agriculture Department-Land Grant College research system.

Efforts to pass a bill setting up a separate research organization — either inside or outside of the Department — are now apparently dead for the year in Congress because of USDA opposition.

Backers of the separate unit approach want a special research organization to put more steam behind studies aimed at finding new uses for surplus crops. USDA sympathizes with the idea of finding new uses, all right, but doesn't want to run the risk of letting that field run away with the lion's share of the research dollars. There's apparently a fear that if industrial use research was cut loose from its place in the overall farm research program, it would become a Congressional pet and other vital projects might suffer.

Bigger Conservation Reserve

Congressional action on USDA's appropriation bill clears

(Continued on page 15)

Wisconsin Alumni Research Foundation

This four-page educational insert is sponsored by The Wisconsin Alumni Research Foundation, Madison, Wisconsin. Additional copies may be obtained by writing to Wisconsin Alumni Research Foundation, Post Office Box 2217, Madison, Wisconsin.

WISCONSIN ALUMNI RESEARCH FOUNDATION

TEAR OUT

TEAR OUT

TEAR OUT

Rodent Control Information

RAT CONTROL with WARFARIN

With rats responsible for two billion dollars worth of damage each year in the United States alone, it is small wonder that they are considered a major enemy of mankind. They eat and contaminate with their excreta grain and other foods, destroy farm property, cause destructive fires, attack poultry and livestock, often simply for the pure malicious joy of killing.

To insure their position as man's foremost enemy, they carry and spread a variety of deadly diseases . . . typhus fever, Plague, dysentery, leptospirosis, and rat-bite fever, to name only a few.

> ***"Contamination of food by rodents is a major source of violations of the Federal Food, Drug and Cosmetic Act. Every year hundreds of court actions make this charge, and thousands of tons of food must be seized because the presence of rodent filth has made it unfit for human consumption. Effective rodent control is needed at all levels of food production and distribution. It is a first line of defense in our efforts to keep foods safe and clean."***
>
> ***GEORGE P. LARRICK***
> ***Commissioner of Food and Drugs***
> ***U. S. Food and Drug Administration***

THE FARM PROBLEM

Because the farm is a natural storehouse of foods, it is also a natural objective for rats. They exercise every conceivable effort to establish their colonies where food is easily available during every season of the year. Without effective control measures the rodent population on a farm will be governed by the amount of food and harborage available. Cases in which rat populations are in excess of 2,000 on a single average size farm are frequently reported. Their control, therefore, is a necessary part of farming and should be a permanent and continuing effort.

Since the pregnancy period for rats is 21 to 25 days, and the average female bears a litter of 7 to 8 young 3 to 6 times each year, it is easy to see that any relaxation of a control program makes it possible for only a few migrating rats to develop rapidly into a serious and overwhelming problem.

KINDS OF RATS

The Norway Rat

Two species of rats . . . the Norway and the Alexandrine . . . comprise the major portion of America's rat population. The Norway Rat is by far the most numerous. It has been variously called the wharf rat, brown rat, sewer rat, barn rat, alley rat. It is dull brown in color, and the adult varies in weight from 12 to 16 ounces. The tail is thick and is shorter than the head and body. No part of the United States is free of this particular species. It has settled in cities and on the farm . . . wherever people have settled the Norway rat has likewise made its home.

The Alexandrine Rat

The Alexandrine Rat, sometimes called the roof rat or the Alex, may be brown or gray and has a gray or cream-colored belly. Its maximum weight is about 8 ounces, and its tail is slender and longer than the head and body. The Alex prefers warm climates, and is usually found in the vicinity of the Gulf of Mexico and the southern seaboard areas.

RODENT LIVING HABITS

Both species are destructive, both carry disease. The major difference between them lies in their living habits. The Norway burrows into the ground, generally under a protective overhead cover like a floor, sidewalk, or trash pile. He rarely burrows deeper than two feet, usually no more than 18 inches. The Alex rat is a climber and prefers to nest in trees, behind the walls of buildings, or near the roof or attic.

Both species are more active after nightfall than in daylight. When they are seen frequently during the day it is likely that the infestation is extremely heavy. They strive to nest as closely as possible to their sources of food. Infestations are found mainly near corn cribs, poultry houses, livestock barns, or similar structures because food is plentiful in such locations.

SIGNS OF RATS

The presence of rats can usually be detected without great difficulty. Farm personnel should be acquainted with these signs of infestation.

1. Actually seeing rats

2. Rat droppings, ⅜ to ½ inch long, oval in shape. Shiny black droppings are an indication that they have been recently deposited.

3. Burrows in ground near food supplies.

4. Tracks in snow or dust. Look for tail marks between footprints.

5. Signs of gnawing or damage.

6. Oil smears on walls near ceiling beams.

OLDER CONTROL MEASURES

Control measures which were employed on farms prior to 1950 involved the use of traps, which were ineffective because rats learned to avoid them and greatly outnumbered them; cats and dogs, mostly unreliable and unable to cope with heavy infestations; firearms, a dangerous form of sport but hardly a control method. Poisons were sometimes used, but with considerable hesitation due to the possibility of injuring humans, pets and livestock. Moreover, poisons aroused rodent suspicions and baits were soon left untouched. Other measures included practical sanitation as well as the storage of food and housing of poultry and livestock in such a manner as to protect them from rats. Providing such protection was not always possible or practicable, however, since it required greater effort and expenditure than most farmers were prepared to devote to the task.

NEW CONTROL METHOD-WARFARIN

With the introduction of warfarin in 1950, an entirely new principle was applied to rodent control. Developed in the laboratories of Dr. Karl Paul Link at the University of Wisconsin, warfarin destroyed rats by keeping their blood from coagulating and inducing internal hemorrhage; it is therefore called an anticoagulant. The advantages of warfarin over previous control measures were immediately discovered by farmers, and it has become agriculture's most reliable and effective weapon in rodent control. In its 10 years of use, warfarin has demonstrated these significant advantages.

1. It kills without pain, thus arousing no bait shyness or rodent suspicion.

2. It adds no taste factor which might cause bait refusal, and rats accordingly eat their fill, even while they are dying from its effects.

3. Because bait shyness and refusal are eliminated, entire colonies of rats can be wiped out. Suspicious or marginal feeders no longer survive.

4. It presents little hazard to livestock, pets or humans since serious injury requires multiple doses taken over a period of several days. In case of accidental feeding, symptoms are easily detected and can be quickly reversed by preventing further ingestion of warfarin and administering vitamin K. After 10 years of widespread use, warfarin has a safety record unequalled by any other rodenticide.

5. Warfarin baits are effective against all species of rats, and against mice as well.

6. When warfarin baits are used, prebaiting (a program designed to accustom rats to a particular bait prior to poisoning) is not necessary.

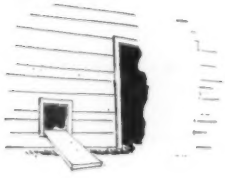
Warfarin is commercially available under many brand names in two forms – the concentrate and ready-to-use. With the concentrate the user is required to add, according to directions on the label, a homemade bait material consisting of ground grains, usually with corn meal comprising the greater portion. Best results are obtained when the grains used are freshly ground. The addition of 5% of corn oil and 5% of sugar has also been recommended.

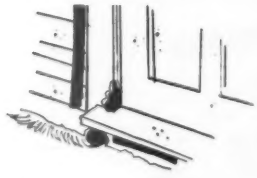
Ready-to-use baits require no further additions. These are compounded with strictest care by manufacturers who realize that the effectiveness of their products depends to a great extent on the acceptability of the bait.

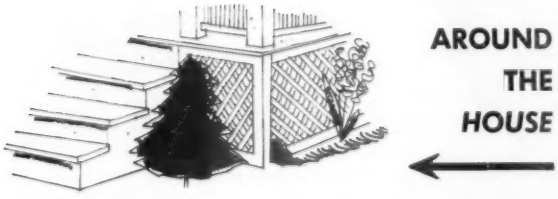
WHERE TO BAIT

Successful rodent control with warfarin-type anticoagulants requires generous baiting in *all* infested locations until *all* rodent activity has ceased. The number of bait stations on the farm will depend, of course, on the degree of infestation. A careful inspection of the premises will aid in determining how many will be required and where they should be placed.

Bait should be placed as near as possible to burrows, rat runways, or food and water supplies. A runway is a path which is followed by rats to reach food and water. Baits should be placed where they will intercept the rats or where they will be easily found by rats, usually against a wall or fence. Rats normally dislike crossing open areas such as the middle of a room or barnyard; accordingly, bait should not be placed in the open.

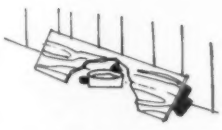




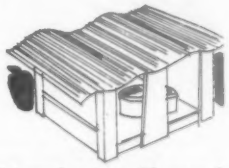


RECOMMENDED BAIT STATIONS

Bait stations should be used to provide privacy to the rat while he is eating, to protect the bait from rain, snow or dust, and to prevent animals other than rodent pests from reaching it. A number of satisfactory types of bait stations have been recommended — ready-built stations, a board leaned against a wall, an upturned carton or bushel basket, an orange or egg carton covered with tar paper, or a feeding station with room for water as well as dry bait. Bait should be placed on a plate or pan to keep it from soaking up moisture from the ground.

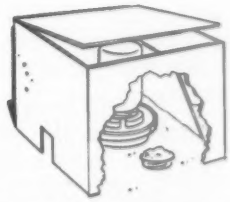


Board nailed against wall



Upturned carton with room for water

Self-feeding, ready-built station



Open crate covered with tar paper

THE BAITING PROGRAM

In moderately infested locations, at least 4 to 6 ounces of bait should be placed initially in each station. If most of this has been consumed by the following morning, then a greater amount should be made available for the next night. Each station should contain enough bait so that some will be left over the following morning. A station whose bait is left untouched for 4 or 5 consecutive nights should be moved to a new location.

Daily inspection of stations is essential, especially in the first week, and bait supplies must be replenished with fresh material as often as necessary. Under normal conditions, bait consumption will be light for the first few nights, much heavier for 3 or 4 nights thereafter. A gradual tapering-off will occur as more and more rodents perish. When no bait is being eaten, and signs of rodent activity have disappeared, it may be assumed that the rats in that particular location have been destroyed.

CLEAN UP AND RAT PROOFING

After the infestation has been controlled, a careful clean-up program should be conducted. Remove trash piles; avoid piling lumber, logs, or worn-out equipment on the ground. Whatever must be stored should be placed on platforms 18 inches above the floor or ground. Buildings and food storage locations should be rat-proofed. Doors and windows should fit tightly, cracks and openings in walls and foundations should be repaired. Every effort should be made to deprive rodents of food, food scraps, hiding places, or harborage. Cut weeds down short around food storage and living areas. Protect grain storage particularly, for rodent contamination of grain may result in serious financial loss. *Note*: Cleanup should be done *after* rats have been controlled . . . *never* before. It is easier to choose proper bait placement areas before cleanup.

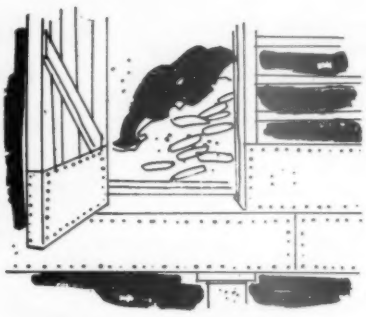
To prevent the recurrence of roden infestation, a few permanent stations should be maintained in strategic locations even when there are no longer any signs of rodents. This will take care of the rats which migrate to the premises from neighboring areas or which hitch-hike a ride by truck or other means. Baits in these stations should be frequently inspected and periodically replaced with fresh material.

Place firewood or lumber on platform 18 inches above ground.

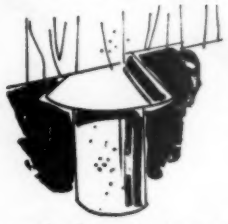
Because of its safety record, ease of use and spectacular performance, warfarin has been widely employed in community-wide rodent eradication programs . . . with outstanding success.

With the recent Federal requirement that grain intended for human use be kept free of rodent filth, most farmers have learned that an effective rat extermination program is among the most rewarding of their projects. When rats are controlled, the farm is a more healthful and a more profitable place to live.

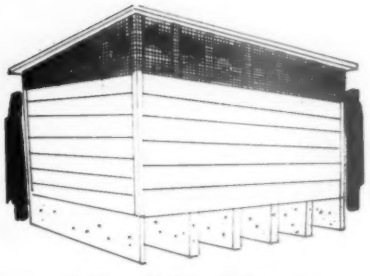
Clean up rubbish.



Nail metal flashing on door edges and sill.



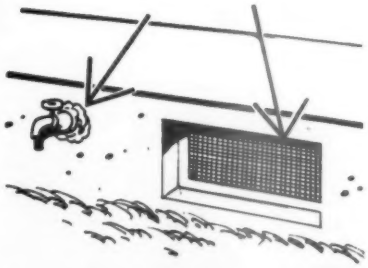
Use metal collars projecting 9 inches around all supports.



Set crib on 2½ foot concrete piers.

Cut grass and weeds around entryways.

Deprive rats of food and scraps. Keep food containers well covered.



Cover openings around pipes and foundation with cement or ¼ inch mesh hardware cloth.

TEAR OUT

TEAR OUT

TEAR OUT

WISCONSIN ALUMNI RESEARCH FOUNDATION

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up some of the questions about the 1960 Conservation Reserve signup which begins next fall.

Congress authorized a $375 million dollar program for 1960, which means USDA can sign up about 5 million acres in addition to the 23 million acres already in the CR.

The legislators have ordered USDA to give priority this fall to farmers who applied for contracts last spring but were turned away. The ceiling on annual rental payments will remain at $5,000. Regulations on payments for establishing conservation practices may be a little tighter than in the past.

Farmers Must Use Allotments

There were strong hopes at presstime that Congress would pass a bill aimed at getting unused cotton acreage allotments planted.

The plan has Administration blessing. It would say, in effect, that farmers who do not plant or release their allotments must begin giving them up to other growers in the same county. Second call on unused allotments would go to the State in which the allotment originated. Third call would go to the national allotment.

New Grade for Eggs

That "controlled quality" egg grading program USDA has been testing around the country will be put into operation on a nationwide scale September 1 if present plans are carried out.

This will not eliminate the present program of grading shell eggs by candling. Producers who want to continue under the old program may do so. But there will be obvious promotion and sales advantages in shifting to the new "controlled quality" system, many officials in Washington believe.

Eggs which meet standards proposed under the plan can be labelled Grade AA or under a new grade, "Fresh Fancy Quality." Eggs meeting standards for Grade A quality could also be designated as produced under the program.

To measure interior quality of eggs produced under the program, graders would use "Haugh unit" tests based on the weight of the egg and the albumen height.

Collapse in Cattle Market?

Signs of concern over a coming price collapse for cattle have been multiplying in Washington.

Agriculture Secretary Ezra T. Benson's National Agricultural Advisory Commission recently advised him to team up with Extension Services to carry the warning to cattlemen.

USDA economists believe that if the current buildup in beef cattle herds can be moderated, the growth in supply will go to market eventually at lower but not disastrous prices. If the present buildup pace continues unchecked, however, the experts are convinced there will be a headache-producing collapse in beef markets in a year or two. Coupled with this fear is the prospect, as some top economists see it, of a severe drop in hog prices in the fall of 1960.

Farm Groups Can't Agree

Recent hearing on general farm legislation before the House Agriculture Committee demonstrated again — if it needed any proof — that the nation's big farm organizations are too far apart to give Congress much help in writing a new omnibus farm bill.

One of the major roadblocks to approval of major farm legislation in recent years has been the failure of the groups which speak for farmers to take a united stand on basic farm policy issues.

Whether these disagreements are healthy or not, their existence makes it harder to "sell" farm legislation to a city-dominated Congress.

Witnesses before the recent House hearings were top officials of the American Farm Bureau Federation, the National Grange, and the National Farmers Union.

The Grange and Farmers Union, both continuing to stand on the policy lines they have held in recent years, appear willing to get together on programs for major crops. But the Farm Bureau Federation continues to stand rock-solid for the Administration-backed idea of getting the government out of agriculture by reducing support prices. There was no visible ground for a compromise that would bring all three groups into common-front support of a major farm bill. End.

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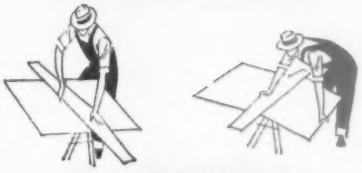

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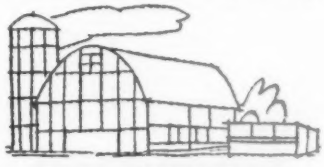

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VERTICAL INTEGRATION—

This month we have tried to look at this problem of the county agent's place in an integrated operation from both ends of the line. This article by Administrator Ferguson gives the viewpoint from the top. Elsewhere in this issue Poultry Tribune Editor Durell Davis has examined the problem of the grassroots level (See, "Can the County Agent Serve the Integrated Farmer?", page 36.)

C. M. Ferguson,
Administrator, Federal Extension Service

● "Vertical integration," "contract farming," are terms in common use today.

The trend seems to be in the direction of more rather than fewer contract agreements in agricultural production.

What effect will this trend have on Extension education? The answer will depend partly on the specific nature of the contracts developed in the future — realizing that these contractual arrangements may vary by regions and by commodities.

With the farming picture changing at an unprecedented rate, Extension finds it necessary to change just as rapidly.

Let's do a little exploring into the future and try to visualize how contract farming may bring changes in extension work.

It is reasonable to assume that contract farming will follow one of these two general courses:

(1) Contract arrangements consisting mostly of specification buying or selling between farm producers and non-farm firms or farmers' co-ops, with the farmer retaining most of the management decisions on his farm.

(2) Contractual arrangements under which an important part of the management control of the farm production processes is shifted to the integrating firm. A good example of this: The broiler industry in recent years.

We'll probably see both of these types of contractual arrangements develop temporarily within the same enterprise. However, in many areas, one type or the other would likely become dominant. For the next several years it appears that specification buying contracts will develop more than the second type mentioned, in view of the trend to specialization, both in farming and off-farm business of agriculture.

In the development of either type of integration, there'll be a speeding up in the trend toward more specialized production units and the size of the farm producing unit will increase. With either type, competitive pressure on costs will tend to quicken the adoption of new technology and encourage larger units. Thus, we'll tend to move towards fewer but larger production units in any enterprise where this process is successful.

Extension's role will be different under the two types of integration.

We'll be working with people in situations quite different from those at present. Let's first examine the

Some folks have said frankly that the county agent has no place in a highly integrated farm operation. Others maintain the opposite position. We asked Administrator Ferguson where the county agent really stands in this controversy. His ideas are presented in this exclusive feature.

What does it mean to Extension Workers?

situation of farmers successfully producing under a system of specification buying. These farmers will probably be better informed and have more formal education than most commercial farmers of today. They'll want quick access to the most advanced technical knowledge.

Management requirements for successful operation of these specialized farms will increase tremendously. Some of the management problems would result from:

- The need for profitably organizing the larger quantities of assets in terms of complex machinery, higher priced land, and other types of capital required.
- The necessity of producing a large volume of product according to more exact specifications.
- The need to keep costs per unit of production at a minimum because of narrow profit margins.
- Increased need to successfully analyze future prices.
- Decisions must be more exacting because of larger volumes of supplies used and products to be marketed.

To cope with these problems, Extension personnel must be capable of working with and supplying these farm producers with an increased amount of up-to-date knowledge from plant, animal, and engineering science. In addition, Extension will find a need for more economic information concerning prices, cost of production, efficient organization of enterprises, capital requirements, capital management, and economic information about marketing.

Some other implications to Extension:

- There will be greater demand to teach producers the application of modern management knowledge and skills.
- The more specialized producers are likely to demand more educational assistance on public policy issues and "dollar and cents" consequences of various policies and programs.
- More requests will come from farmers for assistance in analyzing the alternatives which are available under different types of contracts.
- Extension can be of educational assistance to non-farm contractors in drawing up realistic specifications and other terms which would speed up the development of contracts mutually advantageous to all parties.

Extension's Role When Management Is Transferred

Extension's approach will probably have to be quite different in cases where management control is transferred. We'll face different problems, deal with people in different situations, and have different opportunities.

Extension workers will have to increase their technical proficiency at a very high level – especially as they work in situations where management control is largely transferred from the farmer to the integrating firm. *While Extension workers will continue to work with the individual farmer* who is involved in vertical integration *they will also need to work more closely with the management of the integrating firms* so that effective educational programs can be conducted with the personnel of the integrating firm, such as servicemen, production specialists, branch managers and others.

If this type integration becomes very widespread, we can expect a considerable reduction in the number of management units with which Extension will work.

There would emerge a need for an approach to problems of both farm production and off-farm processing and marketing. Thus Extension would be presented with an opportunity to develop quite a new approach.

The farm producer who is part of such an integrated business would also benefit from assistance from Extension. Although he relinquishes

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various degrees of control of his resources to the integrating firm, the farmer may want to reconsider all of the facts each time it is possible to open a contract for renegotiation. To do this wisely he will need to frequently analyze his alternatives in farming and, often, non-farming opportunities as well.

To do this well he will need information and help regarding alternative production methods and processes involved in producing the product of an integrated operation. His welfare may depend upon the training and information which he receives from a source not too intimately connected with actual management.

Other Implications for Extension

Some other implications for extension work in connection with integration, regardless of the type, appear to be:

There'll be more clearly distinguishable groups of people and firms which Extension would serve. Some of the more clearly identifiable groups: Firms buying on contract; integrating firms that assume management control, and the various categories of specialized employees they employ; the commercial farm producer, whether independent or tied in with integration.

There seems to be little doubt that vertical integration, with its emphasis on efficiency, will encourage more people to look for opportunties outside of commercial farming. It'll be an increasing part of our job to help these farmers make the adjustment. In addition to helping numbers of farm people size up non-farm opportunities, there will be a continuous educational job with persons attempting to give farming a try.

In spite of the trend toward contractual arrangements, the great majority of producers will continue to farm "on their own." We must not neglect our educational responsibility with these folk. The part-time farmer will continue to look to us for educational help.

Extension is studying its over-all policies and program objectives as they relate to prospective developments in vertical integration. The difference between service and education must be clearly kept in mind as programs move toward more work with larger and more specialized firms.

We will have to cautiously avoid any tendency to head in the direction of being a service agency by continuing and increasing our emphasis on the analysis and solution of (1) the over-all agricultural problems and (2) the specific adjustment problems of farm people. By so doing we will be able to further develop in the direction of a strong educational program firmly based on findings of science and the experience, the needs, and interests of people. End.

RESEARCH CENTER DEDICATED

Eli Lilly and Company has just taken the wraps off its 5 million dollar research center for agricultural sciences at Greenfield, Indiana.

The new facilities consist of an administration building, power plant, veterinary laboratories building, incinerator, veterinary barn, and plant science laboratories building with three adjoining greenhouses. The facilities also include a feed mill for preparing experimental rations, a 10,000-bird broiler house, 1,000-bird caged layer house, three swine barns capable of handling 120 litters a year, a 726-foot-long cattle-sheep barn, and cattle and sheep scale barns.

The 500-acre center includes 15 new buildings and several older ones.

This 726-foot-long cattle barn is one of the new buildings at the Lilly research center.

How would you advise him?

Left to right: Ronald Zeeb, Robert Maddex, Bernard Zeeb, Earl Haas, Robert Zeeb.

EXAMPLE: The Zeeb brothers, Bernard and Ronald, of Bath, Michigan, were operating a 276-acre farm with 34 cows in a stanchion barn. When Bernard's son, Robert, returned from service and wanted to join the farm partnership, the Zeebs called on F. Earl Haas, County Extension Director, and Robert Maddex, Extension Agricultural Engineer, for advice on enlarging their dairy operation.

The Zeebs built a new loafing barn, 56 x 70, and a 20 x 40 silo. The old barn was used for hay storage, milking rooms and calf pens. A year later they added a 30 x 98 hay barn and currently the Zeebs have a milking room and milk house under construction, with double 4 herringbone milking stalls. They can now comfortably handle 75 cows and all plans are designed for increasing the herd to 150.

YOU are the specialist farmers look to for advice in farmstead organization. Take advantage of the help you can get from *Your Local Lumber Dealer*. Get acquainted with him. His knowledge of building or remodeling procedures, and the technical material available from manufacturers through him, will prove very useful.

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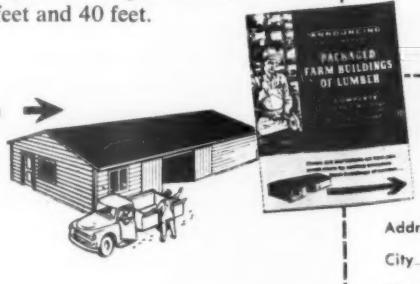

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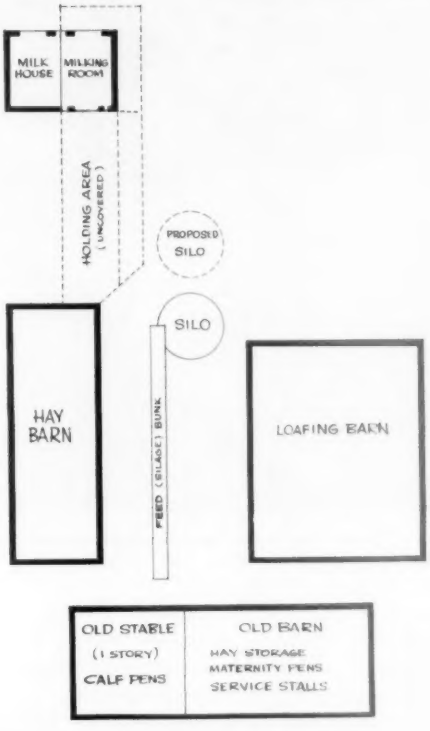

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University of Illinois Farm Safety Specialist Ordie Hogsett, right, checks over a set of slides on corn picker safety with Photo Editor Jack Everly.

BUT BELIEVE ME, MISTER . . . .

This fall, Farm Safety Specialist Ordie Hogsett will conduct a special corn picker safety campaign. His packet of materials includes posters, leaflets, news stories, TV spots, and news mats. If you would like to use these materials in your area, write Ordie for price figures.

by Hadley Read

● THIS FALL, University of Illinois farm safety specialist Ordie Hogsett will launch an aggressive one-man campaign with an all-important two-fold purpose.

Purpose number one is to persuade every Illinois farmer to finish the corn picking season with the same two good hands he started out with.

Purpose number two is to convince farmers who may lose one hand or both hands in a tragic picker accident that they can still be successful farmers after they adjust to their crushing loss.

Few men in the United States could embark on such a campaign with greater dedication and sincerity than Ordie Hogsett, because he has himself to offer as a dramatic case study.

Ordie lost both of his hands in a picker accident 16 years ago as a young farm boy. Determined to pull himself up by his bootstraps, he set out to prove that he could do "just about" everything anyone else could do with two hands.

After his accident, he enrolled in the College of Agriculture at the University of Missouri; graduated; taught G. I. agricultural classes; farmed; worked for the Missouri ASC Grain Laboratory, and then in 1956 joined the staff of the University of Illinois College of Agriculture as a specialist in farm safety.

Although Ordie's work cuts across the entire front of farm safety, there is no question but what he reserves a little extra effort for his personal battle with the corn picker which each year threatens to mangle or kill the farmer who lets down his guard for just a few seconds.

This year, working with our Agricultural Editorial Office, Ordie has stacked up an arsenal of information weapons to help him in his fight. He hopes that every Extension farm advisor and every vocational agriculture teacher in the state will check out the weapons and join the attack. He also would be happy to have county agents and teachers in other states get in touch with him if they

You Can Do Things Easier With Two Hands!

Some jobs that used to take two steps now take three or four, but they can be done—even without hands.

And you can still enjoy a friendly game of cards without hands—but believe me, mister, it's a lot easier with them.

would like to make use of his approach.

The big gun in the attack will be a set of 36 color slides, complete with a tape recording, which graphically tell the story of how Ordie made the adjustment from despair to successful living after his own accident.

With his left hand gone and only the palm of his right hand usable after his own accident, Ordie had to find new ways and a new source of patience before he could dress himself, drive a car and tractor, hammer a nail, play cards, drink milk from a glass without a straw, and do the hundred and one other things which go with daily living.

He does all those things now, and his greatest pride of accomplishment is the fact that he hand-loads all of his high-powered rifle shells with which he hunts deer each year in Colorado and Wyoming.

In the slide set entitled "Believe Me, Mister," Ordie tells his own story to convince farmers they don't have to give up even if they should have an accident. But his real plea to farmers is to keep practicing corn picker safety so that they don't have to learn how to make the adjustments he did. His message is *"BELIEVE ME, MISTER, YOU CAN DO THINGS MUCH EASIER WITH TWO HANDS."*

This same theme is repeated just as dramatically in a 16-page picture leaflet which Ordie is making available for county distribution to farmers by advisers and teachers.

It is repeated again in a 16 x 20 inch poster, in a set of television slides and scripts, newspaper mats, a series of newspaper stories, and in a collection of radio spot announcements.

It takes courage to get over the loss of your hands when you are a young man. It takes just as much courage to use yourself as an example in order to keep others from suffering the same tragic accident. Ordie Hogsett has that kind of courage. End.

SPOTLIGHTING COMMUNICATION METHODS

by Gerald McKay

What's New In Photography?

Judging from the big photographic exhibitions this summer, ag leaders will find everything simpler, faster and more automatic. Electric eyes are being put on cameras selling for as little as $35. Flash guns will be available with bulbs the size of jelly beans that are ejected and replaced automatically. A slide projector will focus automatically and change slides by a remote ultrasonic signal.

Some costly cameras will have a single lens that enables the operator to take close-ups, normal, and telescopic shots at will. And the fastest color film ever made will be on the market. With it you can take better action shots and take pictures indoors with existing light.

The electric eye, first used in movie cameras, is now becoming popular on the 35's. It actually adjusts the lens opening to the correct f stop for any given light conditions. When this device is perfected mechanically, it should take much of the guesswork out of picture taking.

Another noticeable trend is toward more 35 mm. single lens reflex cameras. These are improved over the earlier models by having the reflex mirror return to focussing position immediately after the shutter is tripped. This makes it possible to see your subject almost continuously as the camera is operated.

Person-To-Person Communication

Although ag leaders are using mass communications more than ever, the individual contact remains a key method of transmitting information. Orville Walker, agricultural agent in Kalkaska county, Michigan, has suggested these questions to consider before making that important personal visit.

- Is this your first visit? If so, remember you will be selling yourself.
- How well do you know the person or family? Try to learn something about them before the first visit.
- Are you dressed properly for the occasion?
- Have you chosen the best time to call?
- If it's the first visit, are you prepared to just get acquainted and offer your future services?
- Are you observant?
- Are you prepared to first compliment the person for something he is doing. This often sets the stage properly for the approach to farm and home problems.
- Are you ready to change your plans quickly if necessary? You may find that the person wants to talk about other things more important to him at the time. Are you ready to listen to him?
- Are you ready and willing to help the person physically, such as helping unload hay or do the canning?
- Do you indirectly let the farmer or homemaker know that you once lived on a farm or had similar experiences?
- Can you talk the farmer's or homemaker's language? Don't make him feel that you are superior or that he doesn't know much about the problem.
- Do you know when to close an interview and leave the farm?
- Will you keep a record of your visit?

Howard Knaus, visual aids specialist at Purdue University, demonstrates one of the new combination magnetic-chalkboards. These boards made of light steel with a painted chalkboard surface, are becoming increasingly popular with ag leaders.

Introducing Radio Guests

Did you ever introduce your guest by saying "We have with us today . . .?" Probably most of us have.

Try grabbing your listeners with a question such as: "Would you like a cotton shirt you'd never have to iron," or "How would you like to increase your corn yield by twenty-five per cent?"

Follow the question by telling how today's guest can provide the answer. Then to hold attention, sprinkle in a few phrases such as "imagine this" or "you'll remember that . . ."

Five Rules For Better Pictures

Whether you want color slides or black and white pictures, these five rules will help you get better results. They are basic to all good photography.

1. Plan ahead. Tell your subject where to look, what to do.
2. Keep the picture simple. If you want two centers of interest, take two pictures. It's better to have two or three people in a picture than six.
3. Get up close. This will eliminate background that you don't want. Stay within the focussing limits of your lens, of course.
4. Keep your subject busy. Have him doing something so he isn't looking directly into the camera lens.
5. Watch the background. Unless the background tells part of your story, keep it as subdued as possible. You might use the sky, grass or just a plain wall.

Knowing what use you will make of the pictures will help you follow each of these rules and produce a picture that meets your needs. End.

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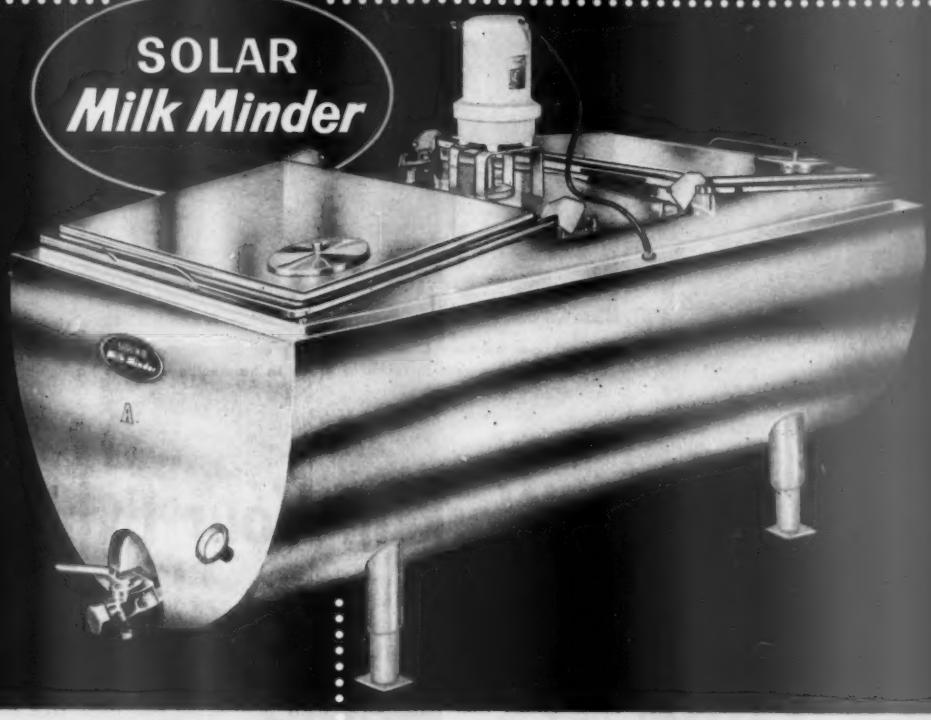

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You'll find more quality in a Solar "Milk Minder" than in other brands of bulk tanks . . . for the same money! There's an inner shell of durable, time-tested 18-8 stainless steel as required by 3-A standards. But that's only one evidence of "Milk Minder" quality and durability.

Every "Milk Minder" has 18-8 stainless in the outer shell, cradle and cooling plate also! There's no cheap mild steel cradle, no angle-iron construction, no painted outer shell to chip and invite rust. There's no mixing of different metals in "Milk Minder" tank shells, coils and lines, because such combinations help to create corrosion hazards inside the tank to shorten the life of the tank.

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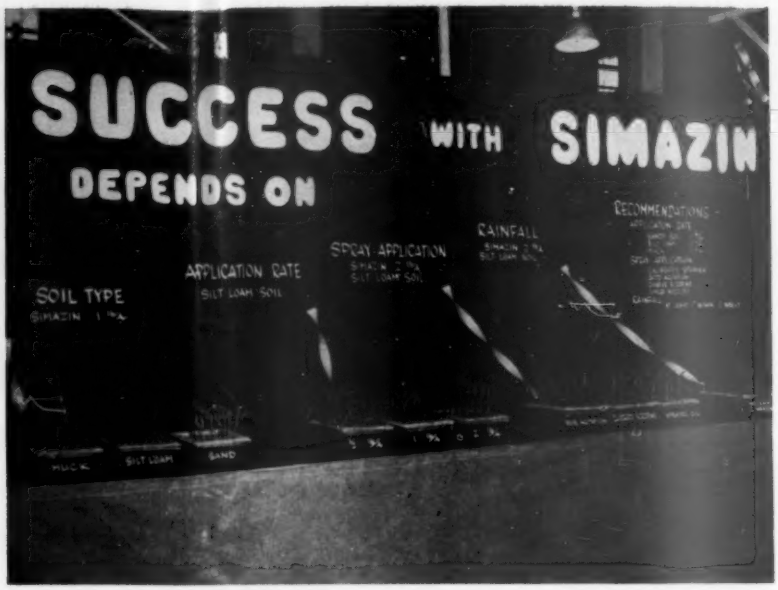
FT-385

by Mario L. Conde-Thillet



Contrast and harmony is achieved in this exhibit with a dark background and light lettering (white). The plants add a touch of green to harmonize with the background color.

Put Color to Work in Your Exhibits

● THE MERE MENTION of exhibits brings a shudder to many ag leaders. It's a job you don't do every day — or even every year. But you don't have to be afraid to tackle the job.

Many states have helpful materials for exhibit planning. Your state Extension office may be helpful. In this article I would like to give you some helpful hints on one phase of exhibit making — proper use of color.

There's nothing mysterious about the use of color in exhibits. You simply need to know a few rules.

First of all, you'll need a color wheel which you can buy for a few cents at any art shop. With this wheel you can easily determine the best color harmony for your exhibit. But after the colors have been selected you'll have to know which one to use where — and how much.

The first rule to remember is: Make one color predominate. This simply means to avoid using two colors of the same intensity in the same exhibit.

This brings us to rule two: Select the symbolic, or basic, color first. Then use the color wheel to choose other colors that harmonize with it.

Rule three: Never use more than three colors in one display. Violate this rule and you are likely to detract from your display.

Rule four: Use light colors in the dark part of your exhibit to make it look lighter. You can usually get good results by using the darkest colors near the floor and the lightest at the top.

The Background Color

The color value of the exhibit background is very important. However, designers say that the colors of the material to be displayed will usually dictate the background color. They point out that the safest way is to use a color that subtly directs the attention to the material displayed. Thus the background color will exploit rather than compete with the colors of the material displayed.

Neutral colors, such as grey, grey-brown and tan are good as background. They neither make pure color brighter or more dull but somehow bring out their true color effect. For dark material use light background and for light ones, a dark background. The strong contrast will make them stand out.

Never scatter a bright or strong color all through the background. Each spot will fight for attention. This will confuse the viewers.

The easiest way to draw attention to the point you want to emphasize is to use darkest color in that spot and surround it with the lightest color. The strong contrast will catch the viewers' eyes.

A Word of Caution

You can use color effectively to make your exhibit more lively and attractive, but remember that your ultimate goal is education. Do not use color just for the sake of added attractiveness or added drawing power. Subordinate all color treatment to your educational idea. Make color work for you in "selling" your message and if you use it wisely it will serve other purposes, too. End.

C ★ ★ ★

WYETH ANIMAL HEALTH TOPICS

How Much Does Mastitis Cost You?

Are you losing cows and milk because of this disease? Wyeth has three products which provide fast, effective treatment of mastitis. One of these three will fit your mastitis-treatment needs.

OINTMENT TRIBIOTIC® is a broad-spectrum antibiotic combination developed by Wyeth to treat and prevent mastitis in cows. Penicillin, dihydrostreptomycin, and bacitracin have been combined in Ointment TRIBIOTIC to give you a 3-way attack against mastitis-causing organisms. By combining the three, you get broader antibacterial action. Another advantage is the exclusive base of Ointment TRIBIOTIC which promotes complete udder tissue spread.

For the farmers who prefer a bougie form of mastitis treatment, Wyeth has **PENSTIX®** and **PENSTIX®-SM.** PENSTIX bougies contain crystalline procaine penicillin G to attack mastitis-causing organisms responsive to penicillin alone. PENSTIX-SM bougies combine crystalline procaine penicillin G and dihydrostreptomycin sulfate to fight the organisms that are not responsive to penicillin alone. Both PENSTIX and PENSTIX-SM have an especially compounded milk-soluble, non-irritating base, and are designed for painless insertion. They don't spoil and no refrigeration is required.

AVAILABLE: All three mastitis remedies are available from your animal health product supplier. Ointment TRIBIOTIC is supplied in 3.75 Gm. handy squeeze tubes for easy application. PENSTIX bougies are supplied in vials of 6 and bottles of 12. PENSTIX-SM bougies are supplied in bottles of 12 and 25.

Treat Serious Infections The Modern Way

INJECTION BICILLIN® FORTIFIED

Benzathine penicillin G and Procaine penicillin G, Wyeth

Busy farmers use INJECTION BICILLIN FORTIFIED because it enables them to treat serious infections *without wasting time and money.* It is the modern way to treat pneumonia, foot rot, navel ill, and other costly infections.

INJECTION BICILLIN FORTIFIED provides high immediate penicillin blood levels which promote more rapid spread of penicillin through the tissues to fight serious infections *fast.* It maintains penicillin in the system for an extended period of time, reducing secondary infection and helping recovery of the animal. Farmers appreciate the fact that *one injection* provides both high, immediate levels and prolonged levels.

INJECTION BICILLIN FORTIFIED is available from your usual supplier of animal health products as a stabilized aqueous suspension of penicillin in 10-cc. and 50-cc. vials (300,000 units per cc.); in 1-cc. TUBEX® sterile-needle units (600,000 units per cc.); and in 4-cc. disposable syringes (2,400,000 units per syringe).

Cut Shipping-Weight LOSSES By Over 50%

Injection

SPARINE®

HYDROCHLORIDE

Promazine Hydrochloride, Wyeth

Cattle shipped from range to feed lot lose weight due to the rigors of shipping. You lose money. Injection SPARINE given intramuscularly to cattle before shipping, *cuts weight losses by over 50 per cent in most cases.*

SPARINE cuts weight losses by controlling the tension, nervousness, and unruliness of animals during handling, loading and shipping. Animals remain steady on their feet without grogginess even in transit. Animals go on full feed fast upon arrival because there is no bawling, fence walking, or milling.

SPARINE has other uses on the farm. It facilitates branding, dehorning, circumcision of bulls, and castration because SPARINE-treated animals are easier to handle.

Talk to your veterinarian about SPARINE. He will show you how SPARINE can make your job easier.

SPARINE is available only through veterinarians.

To Keep Animals Healthy *Economically*

RELY ON *WYETH* ANIMAL HEALTH PRODUCTS

ORDER FILMS WITH THESE COUPONS

VISUAL AIDS

B-K Department
PENNSALT CHEMICALS CORPORATION
3 Penn Center
Philadelphia 2, Pa.
Please send me your movie, "Key to Dairy Sanitation", for showing on the date indicated below:

DATE: .....

ALTERNATE DATE: .....

NAME: .....

ADDRESS: .....

CITY & STATE: .....

BETTER FARMING METHODS, August 1959

NEW HOLLAND MACHINE COMPANY
New Holland, Pa.
Please send me your movie, "How Grass Grows", for showing on the date indicated below:

DATE: .....

ALTERNATE DATE: .....

NAME: .....

ADDRESS: .....

CITY & STATE: .....

BETTER FARMING METHODS, August 1959

Public Relations Department
ALLIED CHEMICAL
National Aniline Division
40 Rector Street
New York 6, N. Y.
Please send me your movie, "New Dimensions in Comfort", for showing on the date indicated below:

DATE: .....

ALTERNATE DATE: .....

NAME: .....

ADDRESS: .....

CITY & STATE: .....

BETTER FARMING METHODS, August 1959

MODERN TALKING PICTURE SERVICE, INC.
3 East 54th Street
New York 22, N. Y.
Please send me your movie, "Tomorrow's Trees", for showing on the date indicated below:

DATE: .....

ALTERNATE DATE: .....

NAME: .....

ADDRESS: .....

CITY & STATE: .....

BETTER FARMING METHODS, August 1959

KEY TO DAIRY SANITATION, 16 mm., sound, color, 25 minutes. Available from B-K Department, Pennsalt Chemicals Corporation, 3 Penn Center, Philadelphia 2, Pa.

This new full-color motion picture on dairy cleaning and sanitation presents modern procedures for dairy farm milk handling. Starting with the milch cow and following the movement of milk from milking through farm storage, transportation, and processing, the film shows graphically how the latest types of chlorinated cleaners, acid-type sanitizers, cleaner-sanitizers as well as well-established manual cleaners and chlorine sanitizers should be used for high quality milk. The new movie was filmed in California, Iowa, and Pennsylvania. The company requests that you order this film well in advance of showing date.

HOW GRASS GROWS, 16 mm., sound, color, 11 minutes. Available from New Holland Machine Company, New Holland, Pa.

"How Grass Grows" tells, with the aid of animated charts, how various natural elements contribute to the growth of grass, how grass is harvested as livestock feed, how fertilizers affect grass growth, and how grass contributes to modern soil management and conservation. The movie was recently endorsed by D. A. Williams, administrator for the U. S. Soil Conservation Service. Williams said: "No previous film, however, has explained in simple, effective terms, how and why proper harvesting of grass so directly affects the ability of grass to make best growth and do its job for conservation and food production."

NEW DIMENSIONS IN COMFORT, 16 mm., sound, color, 13½ minutes. Available from Public Relations Department, National Aniline Division, Allied Chemical, 40 Rector Street, New York 6, N. Y.

This informative motion picture tells the advantages of flexible urethane foam as a furniture cushion material. The film features in sound and color the extensive chemical research, and the variety of tests and experiments, and the controls necessary to produce quality urethane foam cushions. The film takes the audience through a chemical laboratory, a foam fabricating plant, a furniture manufacturing plant, and a retail store. This is a film that might be especially suitable for home demonstration club groups.

TOMORROW'S TREES, 16 mm., sound, color, 32 minutes. Available from Modern Talking Picture Service, Inc., 3 East 54th Street, New York 22, New York.

Weyerhaeuser Sales Company has successfully matched actions that only Mother Nature had achieved previously in its new film, Tomorrow's Trees. On screen, the viewer sees a cyclone snap a century-old tree like a matchstick. Off camera, a giant wind machine thrust out its mechanical breath blowing tumbleweed and fern before it while a steaming diesel strained at a chain fixed to the tree's trunk. To capture the realism of a tree falling, a well-padded camera was strapped to a tree top. Because of such attention to detail, you will find this Weyerhaeuser film very entertaining.

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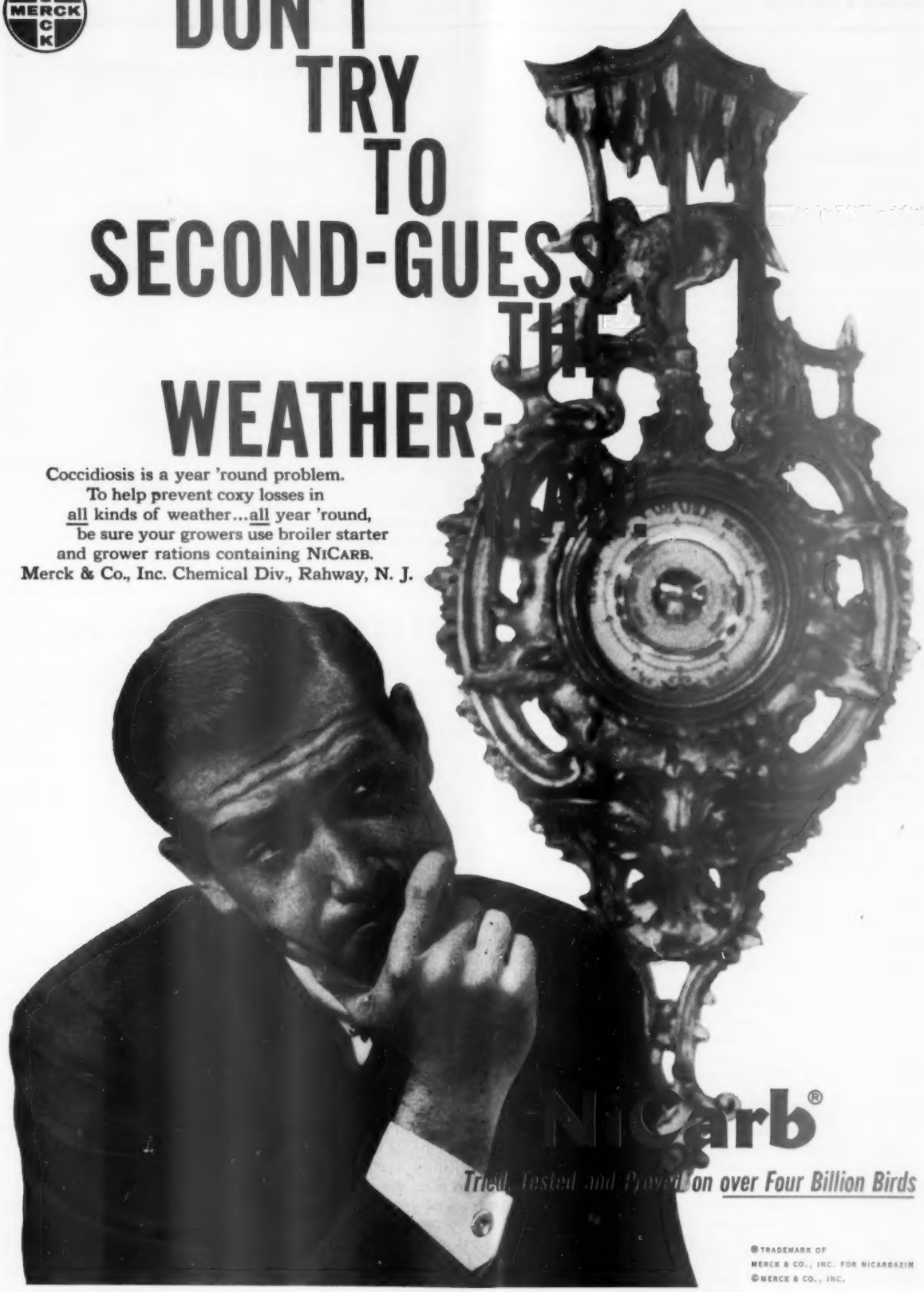

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ECHOES

letters from our readers

DISAGREEMENT—IN PART

I have read with considerable interest the article by Wesley P. Smith in June Better Farming Methods.

I am in agreement with the first part of this article but in the second part of it Mr. Smith makes a mistake which has been quite commonly made in regard to those who might enroll in vocational agriculture.

The Smith-Hughes law states that vocational agricultural education shall "be designed to meet the needs of persons over 14 years of age who have entered upon or who are preparing to enter upon the work of the farm or of the farm home." It does not in any way limit the enrollment. Consequently, Mr. Smith is mistaken when he says that if this purpose were followed it would make it impossible for a boy to enroll in vocational agriculture who has no opportunity to become a farmer. It simply says that the instruction that he is going to take is *"designed* for those who have entered upon or are preparing to enter upon the work of the farm or farm home."

I think this distinction is a tremendously important one and when it is overlooked by one who has had as much experience with vocational agriculture as Mr. Smith, it is undoubtedly misunderstood by many others. So far as I know, no one in a position of national authority has ever indicated that only those who intend to farm should enroll in vocational agriculture. There are many who think that instruction designed for those farming or intending to farm is exceedingly valuable for many going into other agricultural occupations.

Mr. Smith's suggestion for changes in supervised practice would not help the situation. Such supervised work experience as he describes would be better than some of the "make-believe" projects which now exist. There is no question but that many supervised farming programs do not contribute very much to training in farming. The requirement of a project has often been met by the carrying of a little project which has very minor significance to either the student or those concerned with his training. The situation would not be improved by giving little snatches of experience in a number of so-called "related occupations."

What is really needed is the development of long-time farming programs and the recognition by everyone concerned with vocational agriculture that all of the farming experience that a student in vocational agriculture gets is part of his supervised farming program. It doesn't necessarily need to include some little "project" that has no significance to anyone.

There is continual need for progress in vocational agriculture. It has tremendously progressed thru the years. Workers in vocational agriculture have a big responsibility if they provide instruction "designed for those who have entered upon or are . . ." — *Louis M. Sasman, Chief, Agricultural Education, Madison, Wis.*

Editor's Note: The letters on this page were written in response to the article, "Teachers, Let's Be Honest", which appeared in our June issue.

THE AUTHOR'S REPLY

Mr. Frank Waddle has shared with me your June 1 reaction to my statement on agricultural education which appeared in the June issue of Better Farming Methods. Frank asked me to respond to you.

Certainly no one is going to find me disagreeing with you on a basic issue in vocational agricultural education! I have too much confidence in your judgement and too much respect for your points of view to align myself anywhere but with you!

You noted that I have made a mistake "which has been quite commonly made in regard to those who might enroll in vocational agriculture." This may be classified as a mistake, but since you agree it is commonly made, then I suppose you agree that something should be done to eliminate such a common misunderstanding. And, really, that was my prime purpose in using the strong language in my statement.

In reality, there is good and sufficient reason for having this state of confusion. I grant that the Smith-Hughes law states that vocational agricultural education must "be designed to meet the needs of persons over 14 years of age who have entered upon or who are preparing to enter upon the work of the farm or of the farm house." Let's look at the interpretations of the Act made over the years:

Page 13, (b), (1), of Section 102.52 of the Current Policy Bulletin states that this means "Day classes for in-school youth who are *preparing for farming*" (Underlining mine. You stated no one in a position of national authority has ever indicated that only those farming or intending to farm should enroll in vocational agriculture. This statement in the Policy Bulletin seems to be authority for the belief that vocational agriculture is exclusively for those who intend to farm.)

On page 31 of the 1948 Policy Bulletin is a statement that "Admission to any vocational class should be based upon evidence that the applicant can benefit by the instruction to be given in that class, and that he possess the qualifications required for the successful utilization of the training in that given type of work" — and then the additional criteria is noted that entrance to such a class — in this case a class for those *preparing to farm* — is "his chances for securing employment in the occupation after he has secured the training.

And on Page 34 of the 1948 Policy Bulletin is the statement that "no reimbursement may be allowed for classes which enroll both vocational and non-vocational pupils. *Vocational pupils are those enrolled in a course or program in which all have a common vocational objective.*"

And on Page 38 of the 1948 Policy Bulletin one purpose of vocational education in agriculture is to serve "students who are enrolled in all-day classes and who are preparing for farming." There is a following sentence which says: "The in-school youth needs instruction in agriculture to lay a foundation for *his farming career.*"

Even in the 1937 Policy Bulletin the intent seems to be quite clear — for, on Page 17 there is the caution that "admission to any vocational class must be based upon evidence that the individual admitted can *and will* profit by the instruction" . . .

And on Page 28 of the 1937 Policy Bulletin is the specific statement that: "Pupils enrolled in a vocational class reimbursed from Federal funds *must have a common vocational objective.*"

Over many years, first as a teacher and later as a supervisor, I have had called to my attention the ugly word "dilution." Interpretation given to me long ago — by both Federal and State authorities — was that "dilution" meant the enrollment of students with mixed

PURINA VISITS ANOTHER FARMER OF TOMORROW

Ronnie Rogers owns a herd of twelve registered Angus cattle.

Grand Championships a habit with young Missouri farmer

That fine registered Angus heifer exhibited in 1957 by Ronnie Rogers, of Kirksville, Missouri, was Grand Champion everywhere she showed her glossy coat. She was Grand Champion Angus Female (Junior Division) at the American Royal . . . and at the Missouri State Fair. At the Northeast Missouri Fair she was Grand Champion in the open class. And now, she's in the herd of registered Angus that Ronnie is building up for his career as a breeder of registered cattle.

Winning awards with cattle is a habit with Ronnie. He has six trophies and upwards of a hundred ribbons, many of them purple. He has never purchased an animal for showing. All of his winners have come from his own or his father's Purina-fed cattle.

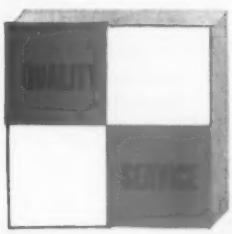
In addition to his cattle raising, Ronnie has been on the county stock judging team five years . . . has served as president of the county's junior leaders . . . has captained the Kirksville High School football team, winning a place on the all district eleven and honorable mention on the all-state team.

This fall, Ronnie will be at the University of Missouri, wearing the black and gold of the football squad. His classroom work will prepare him for a career in animal husbandry. He's a Junior Deacon in the Christian Church.

Purina congratulates Ronnie Rogers . . . Farmer of Tomorrow . . . on his successes of the past and his prospects for the future.

* * *

Ronnie Rogers fits his show cattle on home-grown grain supplemented with Purina Chows supplied by Ruby Green, Inc., Purina Service Center at Kirksville, Missouri. Your nearby Purina Service Center will help with your feeding and management problems, whether your stock is going to the show ring or to market.



FEED PURINA . . . YOU CAN DEPEND ON THE CHECKERBOARD

coming in
NOVEMBER

Commercial literature -- an up-to-date listing of charts, booklets, bulletins and other building aids of value in counseling and advising farmers.

U. S. D. A. -- a current roster of Department officials, plus Extension Service, Soil Conservation and Farmers Home Administration personnel.

Agricultural Colleges -- a state-by-state lising of land-grant colleges and agricultural experiment stations, with personnel.

Agricultural Publications -- magazine and book publishers serving the farm market.

Farm Organizations -- National Assoc. County Agricultural Agents, National Assoc. County 4-H Club Agents, Vo-Ag Teachers Assoc., Farm Bureau, National Grange and others.

BETTER FARMING METHODS
SANDSTONE BUILDING MOUNT MORRIS, ILLINOIS

vocational objectives — and that when vocational agriculture classes included students who did not intend to farm — or, did not have the facilities to farm — that was dilution!

Again, may I take up your point that "no national authority has ever indicated that only those who intend to farm should enroll in vocational agriculture." Maybe so, but has any one with national authority ever stated in bold words that it was *proper* to enroll those who *do not* intend to farm?

My entire point is that when we are advised that a program is *designed to train those who are preparing to farm* it takes a stretch of imagination — and of the English language — to read into such a statement that the same program is designed for any others than those who will actually farm. I hasten to say that this language *does* give us some wiggle room — and all that I have preached is that we take advantage of our opportunity — and be bold enough to eliminate this confusion you admit is widespread.

Now, as far as the supervised practice is concerned. I would certainly not want to replace a mediocre supervised farming program with an equally mediocre work experience program. Your reference to "little snatches of experience in a number of so-called related occupations" is not my version of any improvement whatsoever. I merely think that for certain boys the substitution of a solid, sound work experience project in *agriculture* for a weak "make believe" farming project would advance learning for the boy. At least, couldn't we be brave enough to try it out here and there for selected individuals?

As I said in the beginning, I'm with you! I, too, have told my agriculture classes not all would end up as farmers. And I have great pride in some of those who didn't become farmers! The article I submitted for publication developed this point, but the necessity to cut it down to proper size eliminated part of the emphasis on this matter. I really want us to be as proud of some of the nonfarmers we produce as we are of the farmers we start along the way to success. And I want us to take more credit for these non-farmer products of our classes.

I know Frank Waddle is needling all of us a bit in this area of our program — and this will probably be a good thing. But I don't want to be stimulated into a position where I take fundamental issue with the Louis Sasmans in our profession! And I won't! — *Wesley P. Smith, state director of vocational education, Sacramento, Calif.*

A TEACHER'S VIEWPOINT

My first reaction after reading Mr. Smith's article was, "Well, it has finally come."

Our state vo-ag conference has

wrestled with this problem over the years and every time we landed in the same futile, deadend he described. To be aware of a problem and still not know how to solve it; or, not to be able to solve it if you are aware of a solution is a part of the paradox of teaching vocational agriculture under the Smith-Hughes Act . . .

But, above all, I am disturbed more by the fact that a state director of vocational education from that great agricultural state of California should ask a direct question which has an obvious answer, and then remind us that we are "to some degree, dishonest."

Question: Are we satisfying the existing interpretation of the Smith-Hughes Act?

Answer: NO! (What else can we say.)

If our answer to the question is YES, it inevitably follows "then almost every ag teacher is, to some degree, dishonest." I don't believe we can keep pace with modern education under the outdated, obsolete, 1917 version of the Act.

It is being caught in this journalistic squeeze and then branded in a national magazine as being dishonest that makes me kick up a big dust and paw the earth.

May I ask Mr. Smith what he and the 49 other state directors of vocational education are doing to revise the Act so we can actually put it to work? Every farmer has to make adjustments in his plans because of drouth, storms, insects, or the government, and that is what we ag teachers have tried to do so that we could conscienciously continue to teach agriculture.

I have just received word that Bob Bishopp, past vice president for Region I of the NVATA for three years and more recently the president of the NVATA has resigned from his position as vo-ag teacher at Powell, Wyo., to go into private business. I hope our good friend didn't grow tired of his associations with us "to-some-degree-dishonest" ag teachers. — *Roy A. Clark, vo-ag instructor, Buckeye, Ariz.*

MR. GLAVIN SPEAKS UP

You certainly pleased one "old-timer" with your remarks and recommendations in the June issue of Better Farming Methods.

Your suggestion for the rewording of Bulletin No. 1 in respect to Vocational Agricultural Education is sound and I cannot see where it is contrary to the wording of the original Smith-Hughes Act. Dr. Rufus W. Stimpson was one of the framers of this Act. I taught under him starting in 1916 and knew his basic philosophy.

Dr. Stimpson framed the Massachusetts Vocational Act in 1911 under which we have operated ever since. His definition of Vocational Agricultural Education was as follows:

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Tri-Basic (MICRONIZED) COPPER SULFATE

A chemically stable copper fungicide containing not less than 53% metallic copper . . . for spraying or dusting truck and citrus crops. Especially effective in controlling persistent fungus diseases through application of Tri-Basic Copper Sulfate before fungus attacks.

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A neutral Iron compound containing 30% Iron as metallic. Chelated Iron 10% as metallic—applied to foliage of plants for correction of Iron deficiencies.

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The **ES**sential **MIN**eral **EL**ements — contains Manganese, Copper, Iron, Zinc, Boron and Magnesium, all essential to healthy, productive soil. Fruits and vegetables rich in vitamins cannot grow in soil poor in minerals. For soil application. Es-Min-El in spray or dust form for direct application to the plants is also available. Contains nutritional Manganese, Zinc and Copper.

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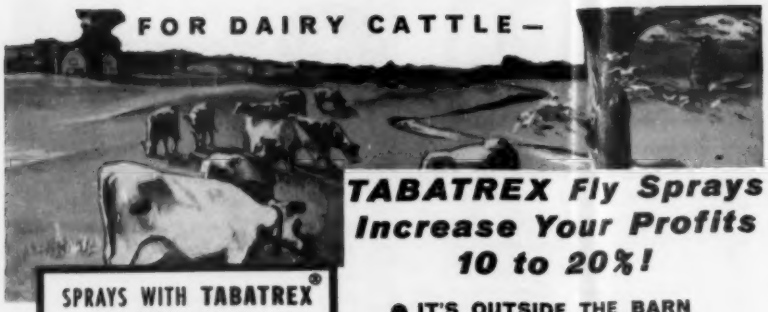

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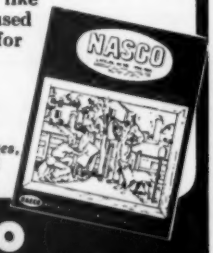

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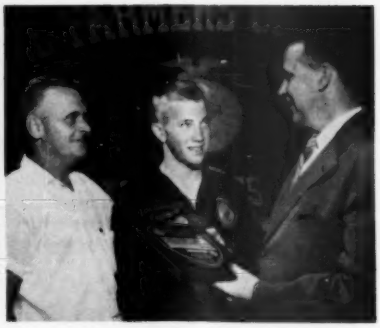
Sycamore Wins Illinois Program of Work Contest



The Sycamore FFA chapter won first place in the Illinois State Program of Work Contest in 1959. Presenting the award to Sycamore Chapter President Don Lenschow is O. C. Floyd, state supervisor of Illinois vocational education. Looking on is Robert Howey, Sycamore adviser.

Have you had an amusing or unusual experience as an ag leader? Better Farming Methods will pay $5 for each amusing incident accepted. Send to: Editor, Better Farming Methods, Mount Morris, Illinois.

"'Agricultural Education', Vocational Education fitting pupils for *occupations connected with agriculture*, the care of domestic animals, forestry and other wage earning or productive work on farm land."

If this was his philosophy in 1911, I am sure that he did not allow a wording to appear in the Smith-Hughes Act that would be contrary to the Massachusetts law.

In the interpretation of a statute, a court in making a ruling, will go back to find what the philosophy of the farmers of such an Act was.

It is true that the Smith-Hughes specifies "six months on a farm" but it does not specify the number of years that this is necessary in order to comply with the regulations. I do not believe that any sound vocational agricultural person is recommending any training program in the field of agriculture that does not involve at least two or three years of a four-year program to be devoted to farming in the broad sense, accompanied by seasonal farm experience covering the type of farming being undertaken.

For a pupil desiring a career in agriculture other than farming, the third and fourth year work experience program would be in the type of agricultural occupation he was interested in.

Since 1911, I know from personal experience, that this is what we have done in Massachusetts and we intend to continue to do so.

I do not know whether I will see you personally again, but if I don't, you have my thanks for your sound recommendations. — *John G. Glavin, supervisor, agricultural education, Boston.*

A PROFESSOR'S COMMENT

Since you invite comment on the Wesley P. Smith article, "Teachers, Let's Be Honest", I'll contribute my two cents worth (inflated to four).

I feel that his proposal is an improvement over what we now have — but a rather small one. I take exception to restricting agricultural education to occupations that require a *proficiency in farming*. Proficiency in farming is not needed to successfully inseminate dairy cows, repair farm machinery, or process fluid milk; yet a general knowledge of agribusiness is almost a must to be a manager or even a skilled technician in one of these fields.

From published research we have a statement that for every farmer we need two workers in non-farming agribusiness. Almost nothing in our present vo-ag program provides guidance or background knowledge that will be truly helpful to these two out of three boys. Under Wesley Smith's change there would be little more opportunity than at present.

For those who say that learning to

(*Continued on page* 38)

U. S. Industrial Chemicals Co.
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Feed Service Corporation
CRETE, NEBRASKA

This 4-page educational insert is sponsored by the above two companies. For additional copies, write to the nearest firm.

New liquid feed supplement provides

PROFITABLE NEW FEEDING PROGRAM FOR BEEF CATTLE, DAIRY COWS AND SHEEP

Production of high-quality meat and milk at low feed cost is the aim of every livestockman. With cattle and sheep, this calls for a maximum use of economical, home-grown roughage and grain and the smallest practical amounts of protein supplement. A good ration also calls for plenty of water and all the essential mineral elements not provided in the roughage and grain. Results of feeding the new MOREA® liquid supplement to thousands of animals show that rate of digestion of the entire ration is improved. The animals eat more to produce more. MOREA supplement also improves nitrogen retention by the animals — the basis for improved meat quality and milk production.

Summary of Highlights

- Ruminant animals obtain their nutrients from roughage, plus proper amounts of grain, minerals and water, in a ration containing 12.5% protein, measured on a dry weight basis.
- Rumen micro-organisms make such a feeding program possible, since they digest cellulose in roughage and fibrous feeds, and in so doing manufacture high-grade protein and carbohydrates for the animals to convert into milk and meat.
- The ethyl alcohol contained in the new MOREA liquid feed supplement enables these rumen micro-organisms to do their work faster and better.
- A practical MOREA liquid supplement program calls for carefully checking proper nutritional balance of the entire ration.
- Results with beef cattle and lambs are faster and more economical gains and well-marbled meat with less outside waste fat.
- Results with dairy cows are improved milk and butterfat production at low feed cost.

What is MOREA® Liquid Supplement?

MOREA liquid feed supplement contains balanced amounts of molasses, urea nitrogen, ethanol (ethyl alcohol), phosphoric acid, trace mineral elements and vitamin D. It is control-fed or fed free choice and cattle will usually balance their consumption through a feeding period at about ½ to 2 pounds per day. Everything in MOREA supplement is a valuable nutrient. The ethanol provides the real key to improved ruminant nutrition.

Feed Rumen "Bugs" Better

As you know, cattle and sheep are ruminant animals with four stomachs. In the first stomach, or rumen, millions of micro-organisms live and multiply on the feedstuffs eaten. When well-fed, they digest the cellulose of fibrous feeds which would otherwise pass on undigested. This mass of micro-organisms provides high-quality protein and carbohydrates for digestion by the animal to make meat or milk. That is why the saying has come about "To feed ruminant animals better, first feed the rumen 'bugs' better!"

Aim to Digest Cellulose

To make a fast start, as well as to keep functioning efficiently, these rumen micro-organisms need many things, including much energy and some protein or simpler forms of nitrogen. There are many kinds of micro-organisms in

the rumen, including those that prefer to feed on protein, and those that especially like to break down cellulose. Since low-cost roughage feeds and home-grown grains contain much cellulose, it pays to favor the bacteria that break down cellulose. Keeping the protein in the ration down to 12.5% favors more rapid cellulose conversion by these bacteria. This level of protein is adequate for all the needs of the rumen micro-organisms and the animals themselves. Extra protein is not used as a source of dietary nitrogen — it is broken down to provide energy and waste products.

Need Available Hydrogen

In their work of breaking down feedstuffs, the rumen micro-organisms need much energy from sugar, starch, cellulose and other carbohydrates. They also need *available hydrogen*. From an ordinary ration, they get some of this hydrogen by breaking down proteins and amino-acids and by fermenting carbohydrates. This is a rather slow process. The ethanol in MOREA liquid supplement provides available hydrogen promptly and readily. It helps the rumen micro-organisms to digest roughage faster and more completely. This enables the animal to eat more roughage per day, and to get greater feed value out of it. As a result, the ration can be balanced for most efficient meat or milk output with relatively large amounts of roughage and small amounts of more expensive grain and protein concentrate. MOREA liquid feed is the only supplement that contains ethanol, the highly efficient hydrogen donor.

Free-Choice Feeding

Rumen fermentation and digestion is a continuous process. When additional feedstuffs are added to the rumen at frequent intervals, the rumen micro-organisms can maintain a high population that works over each new batch of roughage or feed faster. Many studies have shown that ruminant animals do better on frequent or free-choice feeding than on once-a-day feeding.

Starting Animals on Liquid Supplement

Any change in the feeding program of ruminant animals should be made gradually. This also holds true with MOREA liquid supplement which can normally be introduced over a two-week period — or less. The local authorized MOREA mixer-distributor will be best able to suggest the proper way of introducing this supplement to animals in his area. The MOREA 5-point program is the basis for obtaining best results.

Dairy Cows can start with ½ pound of MOREA supplement morning and night, in accordance with all 5 points of the feeding program. Adjust the protein concentrate, and feed all the roughage cows will eat. Increase MOREA liquid feed to one or two pounds per day. When the animals go on free-choice feeding, cows will consume about 1½ pounds per day. If consumption is too high the ration is out of balance.

Dairy calves and heifers. You can start calves on small amounts of liquid supplement as a milk additive the week they are born. Young animals thrive on the liquid feed with low-protein roughage and small amounts of grain.

Dry cows and bulls. Adjust the ration with MOREA liquid supplement so that protein, roughage, minerals and carbohydrates are proper for maintaining animals in good condition.

Feeding liquid supplement to beef and dairy cattle is easy with combination storage-feeder units like this. Dairymen with stanchion barns can dispense the liquid feed from small portable units.

Feeder cattle do well on an average of ½ to 2 pounds of MOREA supplement per day, with all the low-protein roughage they will eat, plus at least one pound of grain per hundred pounds of body weight. Grain feeding can usually be reduced from ordinary feedlot practice — with excellent results in low-cost daily gains, and high carcass quality. On heavy grain feeding, cattle use the grain more efficiently to produce faster, better finish.

Beef brood cows winter in top condition on MOREA liquid feed and roughage or pasture, eating about 1½ pounds per day, and increasing somewhat the last two months before calving. Cows and heifers have an easier time during calving on the MOREA program.

Beef calves make better gains when they get the liquid supplement early, as well as after weaning. Use plenty of roughage and limit the grain. Creep-fed calves produce

ADAPTED TO AUTOMATION ON THE FARM

Liquid handling and storage make MOREA supplement a great labor-saver. The local mixer-distributor delivers by tank truck and pumps a supply into storage. A tank such as this over a feed bunk makes feeding easy — just open the valve when required. A special grid float in the feed bunk prevents waste of the product. so animals lap up the supplement slowly. MOREA liquid feed flows well even in cold weather, and does not attract flies or rodents.

Stanchion feeding of dairy cows is simple with a dispenser like this that provides one pound of supplement at a stroke of the plunger.

an extra gain of 40 to 70 pounds per season, which is mostly muscle and tissue, not additional fat.

Sheep and lambs. Ewes consume up to 1/3 pound of liquid supplement per day when their ration is well-balanced. Lambs take to the liquid feed soon after birth, and it is excellent as part of a high-roughage fattening ration. Users report lower death losses on such a liquid supplement program.

This new liquid feed program benefits feeder, packer and consumer

The national trend toward "supermarket beef" calls for meat of choice quality with little waste fat, good color and tenderness. Feeders, packers, chain stores, meat markets and consumers all benefit when the emphasis in production and processing is on this lean, tender type of meat that the large majority wants. Liquid supplement with a proper grain and roughage program makes it practical and profitable to produce this modern marbled meat with minimum waste fat. See the photos on the next page!

NOTE: For further details on research and on farms and ranches near you using this new liquid supplement, write to the Feed Service Corporation or U.S.I. at the address on the next page.

The MOREA® Five-Point Feeding Program

MOREA liquid supplement is well adapted to any controlled or free-choice feeding program with a variety of local feedstuffs. It is not a medicated feed. Like any good supplement, it requires good management to produce the best results and profits. Below are the five major points of the program.

1. Animals need plenty of clean, pure water of moderate temperature available at all times.

2. Animals must always have available, free-choice, all the low-protein roughage they will eat.

3. Free-choice minerals — ground limestone, (preferably dolomitic), loose salt, monosodium phosphate and potassium chloride are each fed separately. Other minerals may be needed in your specific area.

4. Grain may be fed free-choice or controlled. Amount depends on how fat you want meat animals, on productivity of dairy cows, on roughage quality and relative grain costs.

5. MOREA supplement may be fed free-choice in approved feeders or control fed mixed with grain or roughage. The total daily feed intake, including MOREA supplement, should contain no more than 12.5% protein (2% nitrogen) on a dry-weight basis.

Beef Ration Using MOREA Supplement*

This feedlot ration is typical of many corn growing areas. Several lots of calves on this ration for 128 to 135 days averaged 2.45 to 2.65 pounds gain per day at a cost of 15 to 17 cents per pound of gain, and graded choice at sales. Minerals and water should, of course, be freely available to cattle.

Daily Ration per Head	Pounds
Corn and cob meal (control-fed)	8.25
Timothy-alfalfa hay (free-choice)	2.5
Corn silage (free-choice)	24.5
MOREA liquid feed (free-choice)	1.6

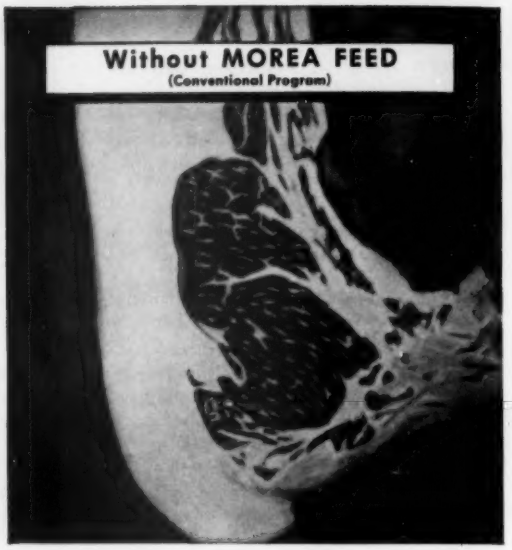
Dairy Ration Using MOREA Liquid Feed*

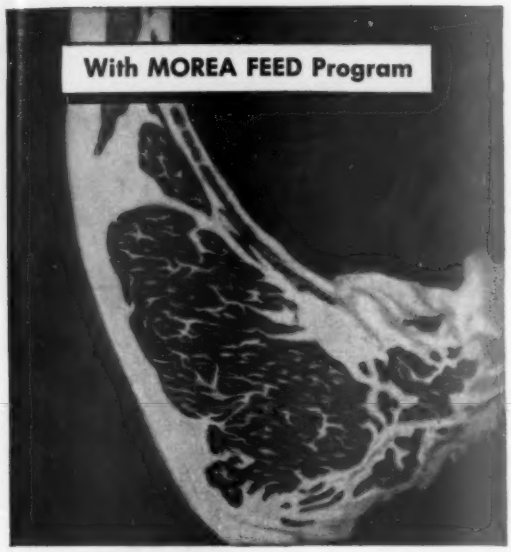
This ration for milkers is typical of the mid-west dairy belt, where concentrate is principally ground oats and ground ear corn, with corn silage and mixed hay the predominant roughage.

Daily Ration per Head	Pounds
Brome grass hay (free-choice)	25.
Corn Silage (free-choice)	40.
Cracked yellow corn	5
Rolled oats	5
MOREA liquid feed (free-choice)	1.3

Where grains or grain mixtures are not always available, use the very lowest protein commercial dairy feed that can be obtained. (See Point Four of MOREA program)

*In using the feeds common in your area, check them carefully according to the five-point program.





MOREA® liquid feed supplement makes marbled meat

These two cuts of prime beef are from sister animals. Beef at the left, produced on a conventional ration, shows well-marbled meat and much waste fat. At the right, beef produced on a MOREA supplement program has excellent marbling with minimum waste fat.

Many packer-buyers have discovered the excellent carcass quality and high dressing percentage produced by cattle and sheep on this liquid supplement program. More and more livestockmen are building their standing as "reputation feeders" by using MOREA liquid supplement.

A new 16 mm. color movie showing results with liquid supplement feeding is now available. For a showing, write to the closest address at bottom of the page.

What Users Say about MOREA® Liquid Supplement

From a small start, growth of liquid supplement feeding has been rapid. Mixer-distributors are now supplying this feed in more than 35 states. (Additional distributorships are still available). About 1 million animals are currently on this modern liquid supplement program.

BEEF

Texas: "My cattle get more good out of poor range with liquid supplement feeding. From Christmas to May they wintered last year for $5 per head. On previous protein, wintering cost $12.50 to $15 per head."

Colorado: "MOREA supplement with hay, corn, beet pulp and silage fed to calves produced gains of 2 pounds per day at 14 cents per pound. Average carcass yield was 62%."

South Dakota: "Heifers on 90-day feed with liquid supplement gained 2.7 pounds per day. Heifers on the same hay, corn and silage plus Supplement A gained 2.1 pounds per day."

Iowa: "Liquid supplement compared to conventional protein showed amazing gains at lower cost. As a veterinarian as well as feeder, I note that calves with shipping fever get back on feed faster on the liquid supplement."

DAIRY

Wisconsin: "Our herd eats more hay, produces more milk and shows 0.35% higher butterfat test. Instead of feeding 5 tons of grain per week, we use 5 tons every 12 days. With MOREA liquid feed, net per cow is up $7.76 per month."

Pennsylvania: "With liquid feed our cows eat more roughage and less grain, while they produce more milk. Liquid supplement for 50 cows costs $400 per month where protein supplement used to cost $1,000 per month."

Minnesota: "First we noticed 100 pounds more milk per day from 60 cows, then butterfat test went up 0.3%. For each $90 for liquid feed, we get an extra $180 income."

Ohio: "In my first year on liquid supplement, each cow averaged $12 per month higher cash income."

Iowa: "We compared part of our herd on liquid supplement versus protein meal for a year. With liquid feed, cows averaged 1780 pounds more milk and 92 pounds more butterfat on 305-day lactation, at lower feed cost."

SHEEP

Utah: "We fed 750 lambs MOREA supplement, beet tops and pulp, alfalfa, corn and barley. Another 750 lambs got this same feed with protein pellets instead of liquid feed. Death loss was less than 1 per cent with liquid feed, and 2½ per cent with standard feed. Lambs on the liquid program graded 92% choice, check lambs graded 77% choice."

Nebraska: "The first year on liquid supplement, my ewes produced a 40% bigger lamb crop than on previous grain feeding, and produced plenty of milk even for twins and triplets."

MOREA Pre-Mix is made by Feed Service Corporation and U.S.I. Local mixer-distributors formulate the MOREA liquid feed supplement.

FEED SERVICE CORPORATION, CRETE, NEBRASKA

and

U. S. INDUSTRIAL CHEMICALS CO.

DIVISION OF NATIONAL DISTILLERS AND CHEMICAL CORP.
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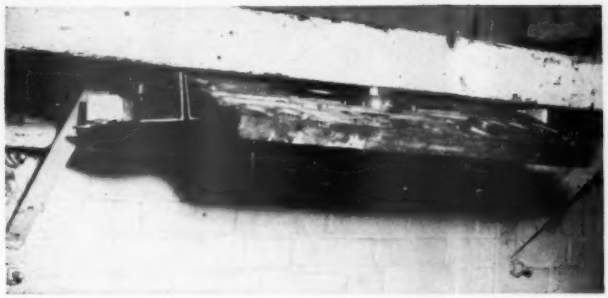
Ideas That Work

Handy Storage Rack for Screw Plates



Our screw plates are too wide to fit our wall cabinets and they got scattered when left in the shop area, so we built this storage place under our wall benches. Two pieces of two and one-half inch angle iron are bolted underneath the bench. A piece of metal is welded on the angle irons to prevent the box from being pushed out the back. The picture shows one set in place and one of the angle irons for the other set. — *Robert Denker, vocational agriculture instructor, California, Mo.*

Identify Breaker Switches to Avoid Shop Confusion

How many times have you made a trip to the breaker box to switch off a machine and upon returning realize you have thrown the wrong switch?

This problem is particularly annoying when you have a separate breaker switch for each machine. Students often turn off machines in operation because they are not sure of the proper breaker switch.

This problem has been eliminated in our shop by assigning each machine — and its breaker switch — a key number. These were marked clearly so that the operator could tell at a glance which switch would turn off his machine. — *Harry T. Miller, Vo-Ag Teacher, Frederick High School, Frederick, Md.*

Do you have an idea that works? Better Farming Methods will pay a minimum of $5 for accepted ideas or teaching techniques that you have used successfully in YOUR work with FFA, 4-H, or farmers.

Helpful IDEAS make BETTER FARMING METHODS

YOUR NO. 1 PROFESSIONAL MAGAZINE

IDEAS on various techniques and methods that will help you transmit to farmers more *efficient and productive* farming practices.

IDEAS on new products and methods that permit you to keep abreast of the latest developments in agriculture.

IDEAS about other AG LEADERS and how they solve everyday management and administrative problems.

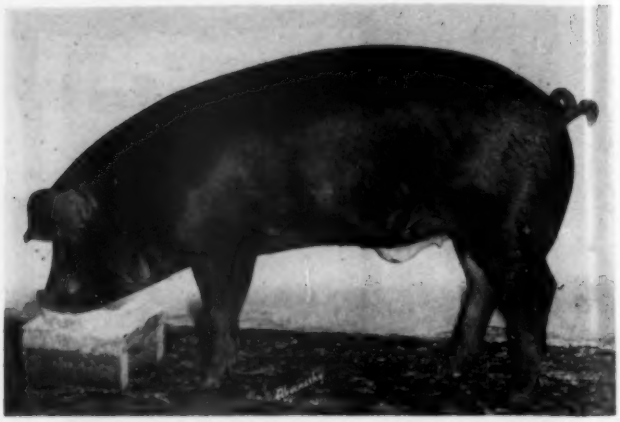
IDEAS on communications and ways they can make your job more *effective and easier.*

IDEAS on new farm legislation and its probable effect on agriculture.

Plus a host of other new and useful IDEAS which are always of interest!

Read it Regularly!

Duroc Judging Pictorial



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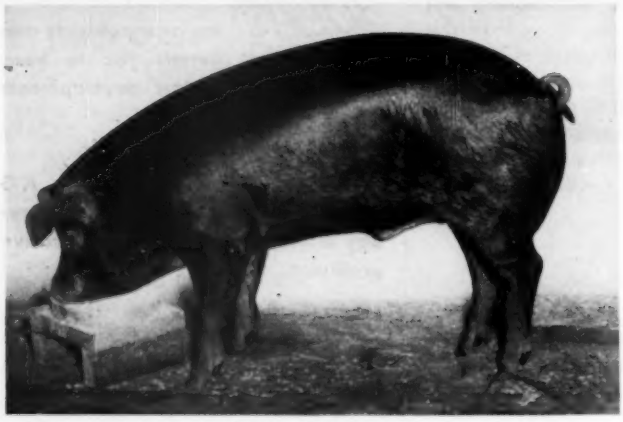

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CORRECT PLACINGS
PAGE 53

PERMALINE is the QUALITY Pipe!

Save Installation Time

L-M Permaline Perforated Pipe is specially designed for draining low-lying fields and muck land, or for low-pressure irrigation.

The long lengths, light weight and strength of L-M Permaline Pipe make it most convenient for temporary or permanent installations.

L-M Permaline is outstanding for barn and silo drains because it doesn't rust or rot, isn't affected by acids, alkalis, or hot water.

Many other uses—draining estates or subdivisions, septic tanks and house-to-street sewers, downspouts, foundation footing drains.

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L-M Permaline is the *ONLY* bituminous fibre pipe available in all sizes—2-, 3-, 4-, 5-, and 6-inch diameters, in 5-, 8-, and 10-foot lengths. Most complete line of fittings in the industry.

Permaline is the ideal pipe for farm use. You simply drive the couplings on to make a permanent, tight friction-welded joint. No fuss, no calking, no cement. Get the ORIGINAL long-length fibre pipe, L-M Permaline—for better sewers and drains, land drainage, house-to-sewer lines, septic tanks, foundation and downspout drains, etc. It's light, strong, durable, ROOT-PROOF!

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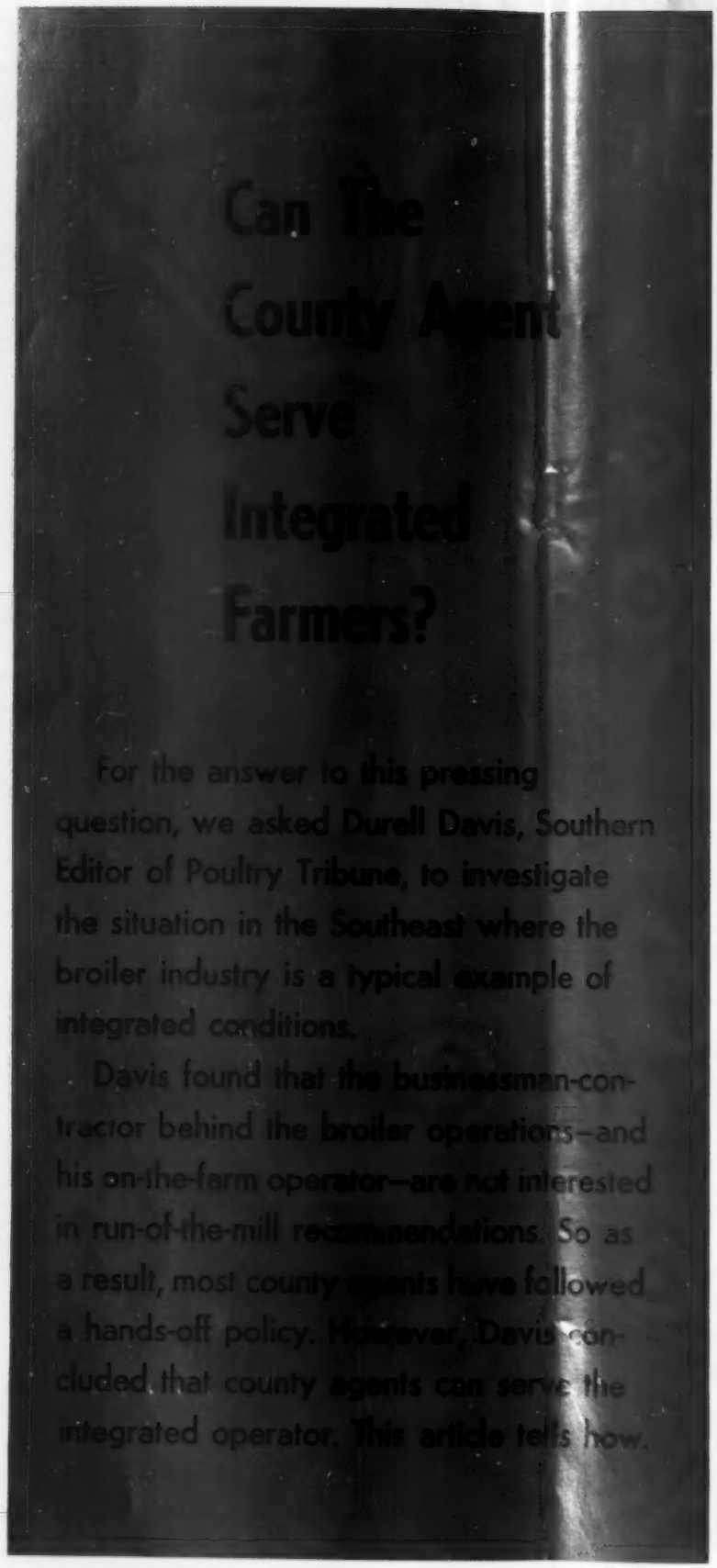

Can The County Agent Serve Integrated Farmers?
For the answer to this pressing question, we asked Durell Davis, Southern Editor of Poultry Tribune, to investigate the situation in the Southeast where the broiler industry is a typical example of integrated conditions.
Davis found that the businessman-contractor behind the broiler operations—and his on-the-farm operator—are not interested in run-of-the-mill recommendations. So as a result, most county agents have followed a hands-off policy. However, Davis concluded that county agents can serve the integrated operator. This article tells how.

● WITH THE INCREASE in contract or integrated farming the county agent's problems are increasing.

Integrated farming is a fast-moving business. So it's a problem to know just how to go about reaching these people.

Most contract farming operations are very highly specialized. The poultry industry, for example, is integrated to a high degree. And the businessmen who opereate these integrated setups have their own servicemen. The farmers under contract and the businessman-contractor usually are not interested in the run-of-the-mill recommendations.

So as a result, many county agents have followed a hands-off policy. They have not attempted to reach this specialized phase of agriculture.

And as a result, the county agent is no longer the leader in many cases.

Contractor-businessmen have their own information specialists and servicemen. And in addition they have a wide variety of commercial specialists whom they can call on for help and advice.

Of course, the county agent cannot be a specialist in all fields. However, some recent schools in Alabama have proved that the county agent can serve the contractor-businessman and the farmer under contract.

Poultry Service Schools Held

In Alabama, two poultry servicemen's schools were held. The schools were sponsored jointly by the API Extension Service and poultry contractors in the area. The two schools, one in Walker county and one in Cullman county, were attended by 104 servicemen and broiler contractors.

"We realize that different Extension methods must be used in an integrated program," says S. L. Davis, Alabama Poultry Specialist.

"Since the broiler grower receives his instructions on management practices from the contractor through servicemen, we decided that it was the responsibility of the Extension Service to provide research information, broiler management recommendations, and other assistance to broiler contractors and servicemen. And in turn, these contractors and servicemen would take the new information to their growers."

"We have eight broiler contractors

in Walker county," says county agent J. C. Bullington. "When we began to plan the school we invited all eight of the contractors to sit down and discuss it. We explained to them that we would have to have their help in planning the school if it were to be successful."

Seven of the eight contractors in the county joined in planning the school. Some of them got commercial specialists to appear on the program. And the Research and Extension people from the Land Grant College at Auburn participated. Also, the chief of the State Veterinary Diagnostic Laboratory assisted in the school.

County Agents Help

The county agents made all local arrangements for a meeting place and contacted broiler servicemen to encourage them to participate in the school.

"There are always some expenses involved such as coffee breaks, printing programs, etc. The broiler contractors joined together to pay these expenses. In the Walker county school expenses ran less than $6.00 for each contractor."

All the talks at the school were recorded and mimeographed. Each person attending the school will get a complete copy of all the talks and proceedings.

"We had no problems with commercialism, although many of the speakers were with commercial concerns," declares J. C. Bullington. We believe we have made firm friends of these people through the serviceman's school."

"In my opinion, the school served the following purposes," says Extension Poultryman, S. L. Davis.

- Brought Broiler Contractors, Servicemen, Extension Service, The College Poultry Department, State Department of Agricultural Industries, and Poultry Diagnostic People together to study mutual problems.
- Opened the door to Extension Service to be of greater help to the poultry industry.
- Provided broiler contractors and servicemen with practical and useful information in broiler production.

More Meetings Scheduled

In Walker county some of the broiler contractors have asked county agent Bullington to assist them in holding area meetings in the county. In these area meetings all of the contractors would bring their growers in to get the latest information. These contractors feel that such meetings would enable them to get growers to use better production practices and thereby reduce production costs.

"The experience we gained from the two poultry servicemen's schools should enable us to do a better job in planning, organizing, and conducting such schools in the future," Davis says. "We definitely think that these schools will continue to be an important method in our Extension Poultry Program. We're extremely interested in maintaining close working relationships with broiler contractors, servicemen, and other segments of the broiler industry. This is essential for continued progress in the broiler business."

Servicemen's schools such as the two held in Alabama give us the means to serve a large number of our farmers," says Cullman County Agent H. G. Pinkston. "In Cullman county we have almost 1,000 poultrymen. This is a large group of farmers. We must adjust our methods to be of greater service to this group if we are to continue to be looked upon as the leaders in agricultural information."

County Agent in Dilemma

Integrated farming can be loaded with public relations pitfalls for the county agent. In many cases integrators put over 'deals' and get them financed locally through Industrial Development Boards. The county agent may be asked to help in getting these businesses started. And he may be asked to help a contractor locate growers. Unless a good congenial working relationship is established with these contract farmers, public relations for the county agent can be bad no matter which way he decides to go.

Through these servicemen's schools it is believed that the county agent can establish a good working relationship, continue to be the leader in agricultural information, and build even more prestige for Extension Service.

Here a group of poultry servicemen, contractors, and other specialized personnel hear Dr. S. A. Edgar of the API Poultry Department explain a coccidioisis chart. This was the first poultry serviceman's school in Alabama.

FARM MECHANICS

for school and farm

How can we cope with the problem of air pollution in the farm shop? Is this the teacher's responsibility?

by T. J. Wakeman

Professor, Agricultural Engineering
Virginia Polytechnic Institute

Everyone connected with farm shops is aware of the air pollution problem. Air pollution is caused by many different things. Just about everything done in a shop contaminates the air in some way. It has been the policy in most shops in the past to be lax in trying to make the air more healthful to breathe. This is probably due largely to the fact that those with official power to start an effective program of air clean-up do not realize the danger to ones health if continually subjected to polluted air. The most common contaminants in shop air, their definition and source are listed on this page.

These contaminants, if present in sufficient quantities, are certainly a cause of serious injury. Use of grinders, and sand blasting equipment can lead to a coating of silicon on the lungs causing a serious disease called Silicosis, which can cause death.

It is believed by the medical profession that smoke, dust, and gases can cause lung diseases. These lung diseases in themselves may or may not be fatal, but all of them place undue strain on the heart and over a long period of time cause the person to become disabled or may even cause death.

The air pollution problem is a very serious problem, but there is hope for a complete solution and there are methods developed by engineers for solving the problem. It is up to each person in a position to help to do something in control of air pollution. Listed below are steps to take in setting up an effective air pollution control program:

1. Define the contaminant or contaminants against which protection is necessary.
2. Learn all possible of the hazards caused by these contaminants.
3. Determine the conditions of exposure that exist.
4. Learn what protective devices to use, if any, and the conditions under which they must be used.
5. The selection of the type respirator to be used should be made from these considerations.
6. Set up a suitable program of maintenance for the equipment.

The problem of air pollution is a problem of the community, the school, the individual, and the medical profession. Secure the advice of your local medical society or county health officer to help prevent this hazard.

If you desire to learn more concerning occupational health hazards, a booklet entitled "Occupational Health Hazards, Their Evaluation and Control" published by the U. S. Department of Health can be obtained for twenty-five cents (25c) by writing Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

An article on mechanical devices for controlling some of the air contaminants will be discussed in this column in a forthcoming issue.

Here are four common contaminants, their definitions, and sources:

1. **DUSTS** – Fine particles of solid materials suspended in air.

Dusts come from sanders, planers, lathes, saws, grinders, sweepings, sand blasting equipment, etc.

2. **FUMES** – Small particles of solids formed when vapors from a normally solid material condense.

Fumes come from molten metals, operation of soldering equipment, forges, welders, etc.

3. **SMOKE**–Extremely small particles of solids produced by incomplete combustion.

Smoke is produced by engines, burning of coal, wood, rags, operation of welders, etc.

4. **GASES**–Fluids which are formless themselves but obtain form of container, filling it completely and uniformly at ordinary pressures and temperatures.

Gases are formed during the operation of welders, soldering equipment, forges and engines.

You're too busy actively helping others to take time off to research every phase and facet of this complex business called agriculture. Besides, there aren't enough hours in your already overcrowded day.

Willing Research Man As Near As Your Telephone

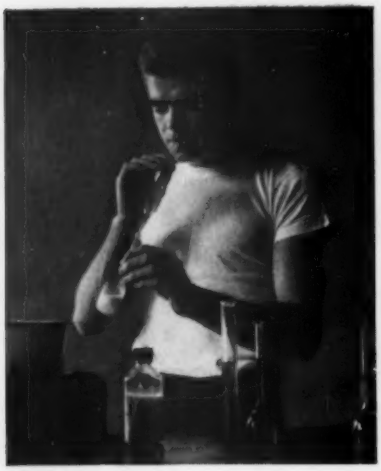
Here's where your Behlen Dealer can help you. Through him, Behlen's entire 13-year experience leading the grain conditioning and grain storage industry in new developments, is available to you. He has the latest in educational tools, and they are yours for the asking. Newest are a sound-and-color film on artificial crop drying (see below) and a 32-page handbook, "ASC and CCC Regulations for On-The-Farm Grain Storage" — a simplified, easy-to-understand interpretation of these vital storage regulations.

Whenever you run across a problem in the grain storage or grain conditioning field . . . call on your Behlen Dealer. If he doesn't have a ready answer, he has an up-to-the minute reference library or can contact a Behlen specialist to supply you with the correct answer.

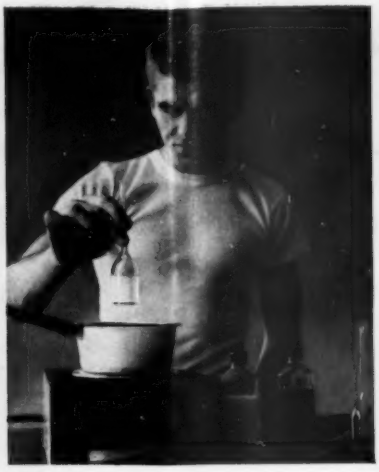
FREE MOVIE — *"Why Dry?"*

The latest non-commercial moving picture on the practical advantages of grain drying is now available for all group meetings and classroom presentations. Contact your local Behlen Dealer for free use of this outstanding 30-minute film; or, write:

Behlen Manufacturing Company
Dept. BF-8 , Columbus, Nebraska

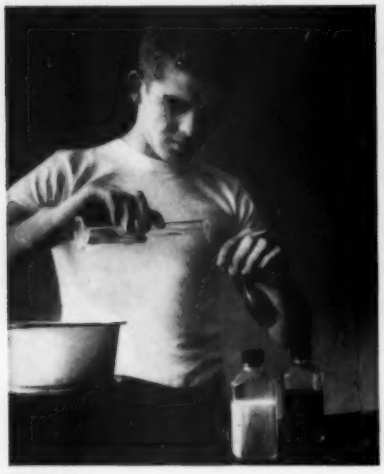


STEP 1.
Pipette milk into Kimble milk test bottle.



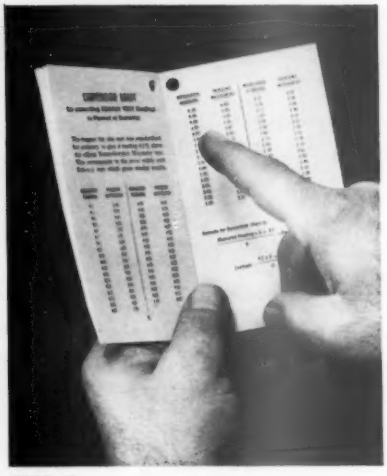
STEP 2.
Shake, boil for 1 minute, shake again.

STEP 3.
Add Schain Test Reagent. Cool 3-5 minutes.



STEP 4.
Boil 5 minutes. Float fat with distilled water.

STEP 5.
Measure red column of fat in neck of bottle.



STEP 6.
Convert to percent butterfat with chart.

Do-it-yourself Butterfat Test in 6 Simple Steps

Schain Test is the one butterfat test which can be taught in vo-ag classes for practical use on the farm. It eliminates the hazard of working with acid and the need for a centrifuge, water bath and other expensive equipment. Schain Test is safe, simple and fast to perform—gives results fully as accurate as those obtained with the Babcock test. Call your local Merck Laboratory Supply House or National Agricultural Supply Company for Merck Schain Test Reagent and complete information for classroom use.

Schain Test® Reagent

a product of **MERCK**

MERCK & CO., INC., *Chemical Division,* **Rahway, New Jersey**

C ★★★

ECHOES

continued from p. 28

farm is good background knowledge for these other occupations, I would add that it is perhaps helpful, but neither desirable nor vocational, and most of all exceedingly wasteful of educational time as well as lacking in appeal to those who have no intention of farming. Boys interested, or who might be interested if they knew about it, in non-farming agribusiness do not need farming skills any more than the students in machine shop or sheet metal shop need to know the skills connected with the blast furnace, open hearth furnace, rolling mill, or wire drawing. General education of the production phases is desirable for both (industry and agriculture).

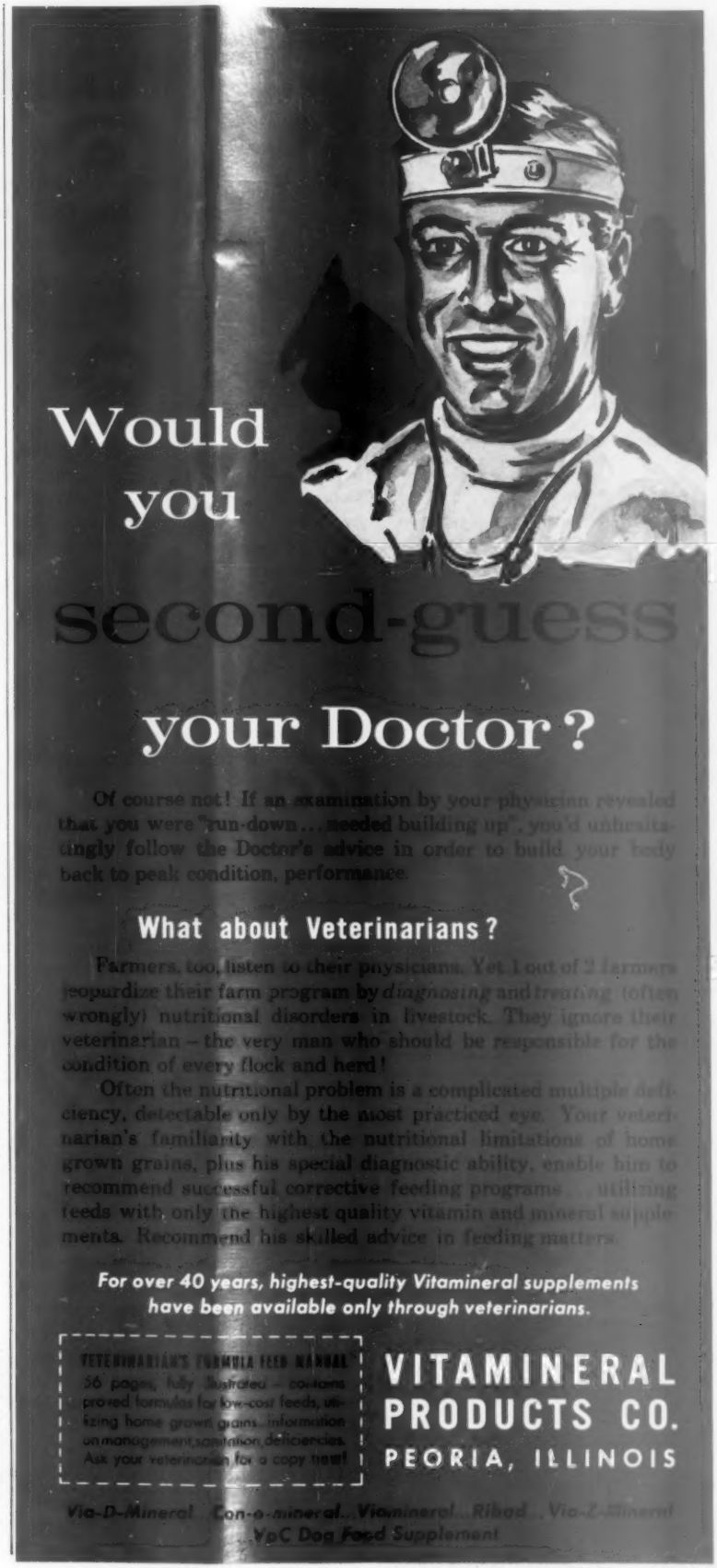
Let's push for an exploratory program in agribusiness along with vo-ag just as industrial arts does for trade and industrial education. — *E. W. Foss, department of agricultural engineering, Cornell University, Ithaca, N. Y.*

CONCENTRATED CONFUSION

I just finished reading the article, "Teachers, Let's Be Honest" by W. P. Smith and thought I would accept your invitation to submit my ideas . . .

Next year will be my tenth year of teaching agriculture. This is not a long time, but there have been many changes since I started, some good and some bad. I believed at that time that I was teaching farm boys how to do a better job of farming. Enrollments were high, attitude was good. Now we have fewer farm boys going into farming, but a greater demand for trained people to service agriculture in some related field. This means that we lose these boys sometimes because of our requirements for enrollment. If we let down the bars and allow entry with the hopes that the boy can keep something going as a supervised practice program, then, as Mr. Smith says, we become somewhat dishonest, and in turn, weaken our goals and our program . . . — *Gene L. Elliott, vo-ag instructor, Farmer City, Ill.*

We certainly appreciate your comments on this important article. I think you have demonstrated that there is much interest in this vital area of vo-ag's future. And, I hope this sharing of ideas will help resolve some of the many problems we must tackle in the years ahead. We, of course, invite further comment on this particular article. — Editor


Would you second-guess your Doctor?
Of course not! If an examination by your physician revealed that you were "run-down... needed building up", you'd unhesitatingly follow the Doctor's advice in order to build your body back to peak condition, performance.
What about Veterinarians?
Farmers, too, listen to their physicians. Yet 1 out of 2 farmers jeopardize their farm program by diagnosing and treating (often wrongly) nutritional disorders in livestock. They ignore their veterinarian – the very man who should be responsible for the condition of every flock and herd!
Often the nutritional problem is a complicated multiple deficiency, detectable only by the most practiced eye. Your veterinarian's familiarity with the nutritional limitations of home grown grains, plus his special diagnostic ability, enable him to recommend successful corrective feeding programs... utilizing feeds with only the highest quality vitamin and mineral supplements. Recommend his skilled advice in feeding matters.
For over 40 years, highest-quality Vitamineral supplements have been available only through veterinarians.
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56 pages, fully illustrated – contains proved formulas for low-cost feeds, utilizing home grown grains...information on management, sanitation, deficiencies. Ask your veterinarian for a copy free!
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COMING EVENTS

August 9-12 — 31st Annual Summer Session of the American Institute of Cooperation, University of Illinois, Urbana. Contact G. L. Jordon, University of Illinois Department of Agricultural Economics, Urbana.

August 10-12 — 39th Annual Convention of the American Soybean Association, Hotel Sheraton-Jefferson, St. Louis, Mo. Contact American Soybean Association News Service, Hudson, Ia.

August 20-22 — Southwestern Barrow Show, Lubbock Fairgrounds, Lubbock, Tex. Contact Waylon Carroll, Secretary-Treasurer, 3103 47th St., Lubbock, Tex.

August 17-22 — 18th Annual Florida Poultry Institute, Camp McQuarrie, Astor, Fla. Contact J. S. Moore, Extension Poultryman, University of Florida, Gainesville, Fla.

August 26-29 — 14th Annual Convention of The Soil Conservation Society of America, Rapid City, S. D. Contact The Soil Conservation Society of America, 838 Fifth Ave., Des Moines, Ia.

September 6-10 — Annual Meeting of the National Association County Agricultural Agents, Kansas City, Mo.

September 9-10 — Farm-orama 1959, Russell Case Farm near Richwood, Ohio. A comprehensive working demonstration of agricultural equipment and supplies. Contact Farm-orama Associates, Box 386, Richwood, O.

September 9-10 — Maryland Poultry Service Conference, University of Maryland, College Park, Md. Contact Wade H. Rice, Secretary, Maryland Poultry Service Conference, University of Maryland, College Park, Md.

September 23 — Annual Meeting of the Vermont Feed Dealers and Manufacturers Association, University of Vermont, Burlington, Vt. Contact D. C. Henderson, Secretary, Vermont Feed Dealers and Manufacturers Association, Hills Agricultural Science Building, Burlington, Vt.

September 23-25 — 16th Annual Conference of the Florida Fruit and Vegetable Association, Hotel Fontainebleau, Miami Beach, Fla.

October 12-15 — National FFA Convention, Kansas City, Mo.

November 9-17 — 93rd Annual Convention of the National Grange, Long Beach, Calif.

November 23-December 5 — International Live Stock Exposition-National Dairy Show, International Amphitheatre, Chicago, Ill.

November 20-26 — National Farm-City Week.

November 5-11 — National Vocational Agricultural Teachers Association Convention, Chicago, Ill. Contact Jim Wall, Executive Secretary, NVATA, Waverly, Nebr.

ADVERTISERS' INDEX

Amer. Agricultural Chem. Co. 8-9
Amer. Tel. & Tel. Co. 5
Amer. Trucking Assns. 39
Behlen Mfg. Co. 38A
Bostom-Brady Mfg. Co. 42
DeKalb Agricultural Assoc., Inc. 56
Ft. Dodge Laboratories, Inc. 55
Funk Bros. Seed Co. 53
Glenn Chem. Co. 28
Grace Co., W. R. 44
Homasote Co. 42
Lilliston Implement Co. 50
Lily & Co., Eli 45
Line Material Industries 35
Merck & Co., Inc. 23-38B
National Agricultural Supply Co. 28
New Holland Machine Co. 3
Oliver Corp. 51
Phillips Petroleum Co. 43
Plant Science Products Co. 18
Ralston Purina Co. 25
Ruberoid Co. 15
Salsbury Laboratories, Dr. 50
Schering Corp. 2
Solar Permanent Co. 22A
Sunbeam Corp. 53
Tennessee Corp. 27
U.S. Industrial Chem. Co. 29-30-31-32
U.S. Steel Corp. 7
Vantage Press 28
Vitamineral Products Co. 38C
Wisconsin Alumni Research Found. 11-12-13-14
Wyeth Labs. 22C

the "RURBAN" PROBLEM

Many ag leaders wonder what to do about serving city folk who move to the country. Here's how two groups handled the problem.

● THE MUSHROOMING GROWTH of America's metropolitan population is creating new problems for Soil Conservation Districts. With our cities bulging at the seams, thousands of families are moving farther into the countryside each year in search of living room.

When a New York lawyer buys an 80-acre farm in a District, takes it out of production, and moves there with his family to escape the bustle of the city, what is the responsibility of the District to that lawyer — when the lawyer asks for conservation assistance?

Should conservation work on residential property in rural areas be given the same priority as work on land being used for agricultural production?

These and similar questions have been perplexing many District governing bodies in recent years. They have also been the subject of continuing study by the National Association of Soil Conservation Districts Committee on Rural-Urban Affairs, in cooperation with designated officers of the Soil Conservation Service.

The SCS Policy

Important policy determinations have now been made by both NASCD and SCS which should help materially in resolving the questions I have just outlined.

In brief, the SCS has announced it will give technical information and assistance on problems of soil and water conservation and proper land use to land planners, owners, and occupiers in "rurban" areas where requested. This help will be supplied, however, **"only in the amounts and according to the priorities established by governing bodies in Soil Conservation Districts."**

"Rurban areas" are defined by both NASCD and SCS as those areas "usually near cities, in which the predominant land use is for purposes other than agricultural production." This does not include urban and suburban areas subdivided into small lots.

The NASCD Policy

Earlier this year at the NASCD Convention, the Council adopted the following seven-point rurban policy statement:

1. Soil Conservation Districts should accept responsibility for soil and water conservation in "rurban" areas within their boundaries upon request.

2. Districts should develop an application form especially designed for these "rurban" cooperators which will be different from the usual farmer-rancher cooperative agreement.

3. The two types of cooperators — (1) farmer and rancher cooperator and (2) "rurban" cooperators — should be distinguished between and separate priorities of work should be set up for each.

4. Districts should provide planning consultation to "rurban" land occupiers, but no technical layout or application assistance unless it cannot be obtained locally from private sources.

5. All local and State agencies should be called in by the District to give assistance on "rurban" problems.

6. Districts must recognize that any procedures used must be in accordance with the State law under which they are operating.

7. Every District affected by the "rurban" problem should sponsor an intensive educational and information program designed to hold good farm land as long as possible for agricultural use. Close working relationships with planning and zoning boards, industrial development groups, housing commissions, and other like groups should be established and fostered.

The recently issued SCS policy is in close accord with this NASCD statement. It seems we're making progress with a knotty problem! — **From NASCD Tuesday Letter.**

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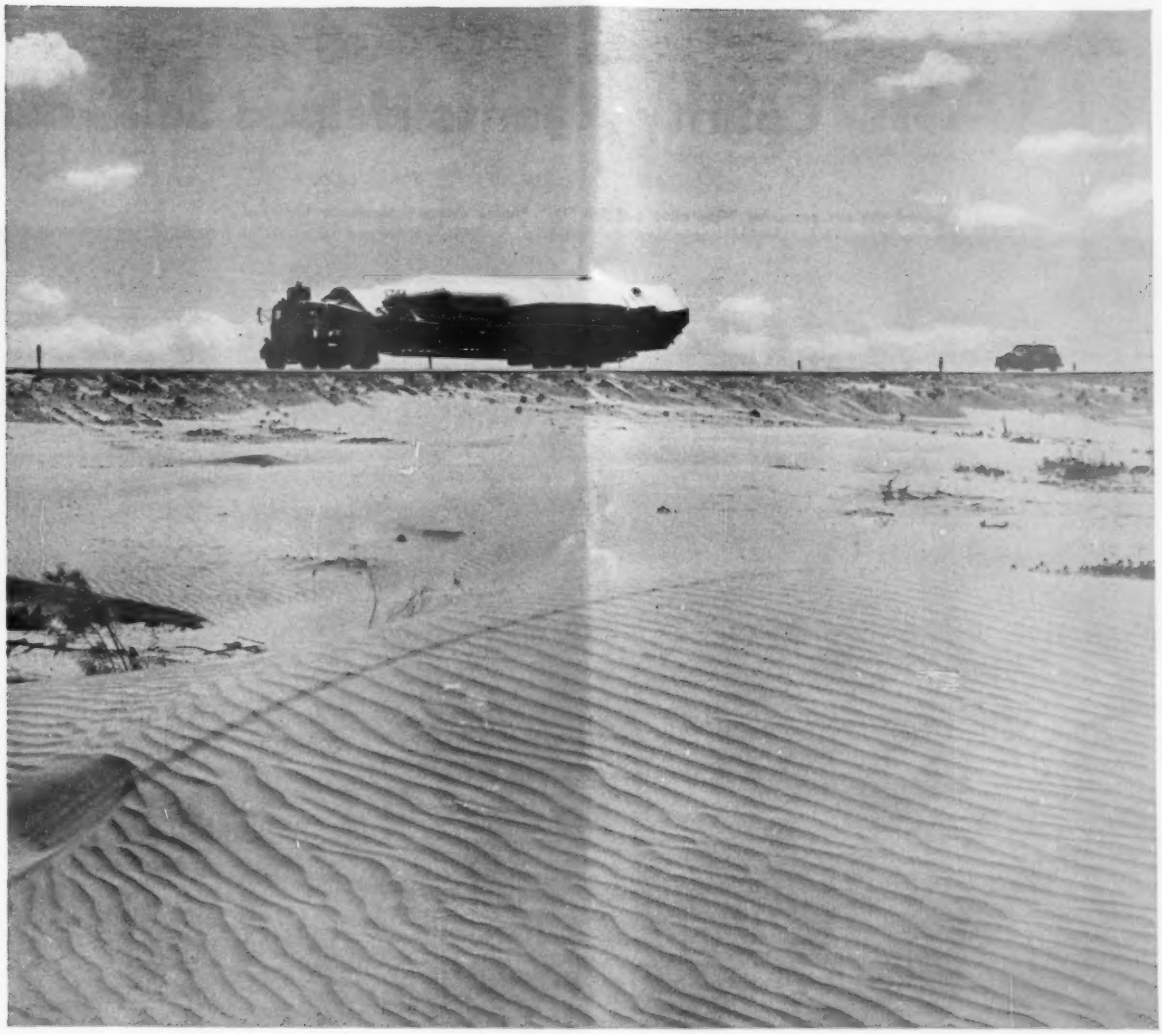
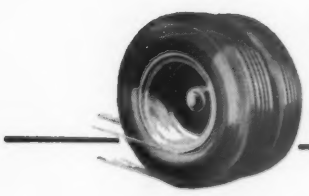


The Stage Before the First Stage!

America's major missile launching pads are served directly on land by trucks — and *only* by trucks. The missile that rides skyward to outer space rides first on a motor truck . . . sometimes all the way across the country. A transcontinental ride for such a "mystery" cargo is just what you'd expect in a land where everything you can think of travels by truck . . . where the business man, the farmer, the storekeeper, the housewife — *everyone* depends on truck transport.



AMERICAN TRUCKING INDUSTRY

American Trucking Associations, Inc., Washington 6, D. C.

THE WHEELS THAT GO EVERYWHERE

ATA

County Agents Helped Sell This

Special editions promoted "Operation Soil Fertility." Photos courtesy Monsanto Chemical Co.

by W. A. Sutton, Director, Extension Service, University of Georgia

$200 MILLION PROGRAM

An all-out soil fertility campaign in Georgia may easily boost farm income by $200 million annually. Conducted by the Extension Service, the program has grown by leaps and bounds.

● TEAMWORK CAN MAKE the selling of a $200,000,000 program easy.

This has been our experience in Georgia where many groups joined forces to carry out a soil fertility program which will easily boost farm income in the state by that amount.

Conducted by the Extension Service, with the cooperation of the Georgia Plant Food Educational Society, this program has grown by leaps and bounds. The only "brake" has been lack of personnel to expand as rapidly as the people of the state are demanding.

Launched in six south Georgia counties in 1957, the program was expanded to 25 additional counties in the fall of 1958 and eventually will be carried to all counties in the state. Here is a step-by-step account of the way action unfolded under the direction of the members of our agronomy project.

First, the program idea was outlined to and approved by Extension administration as a demonstration to determine what could be accomplished using intensified educational methods on soil fertility. Also, soil fertility research workers were contacted to aid in soil testing and to supply research information.

Next, the idea was presented at a state-wide meeting of the fertilizer industry. This group enthusiastically endorsed the program and assigned six commercial agronomists to work with the Extension Service. The National Plant Food Institute helped support the program with funds and visual aids. Many individual fertilizer companies also supplied funds and demonstration materials.

Six selected county agents and assistants were given an opportunity to examine the program and to accept it on a voluntary basis. Following their acceptance, a training session was conducted in which all phases of the program were explained in detail. The program consisted of four general steps: (1) soil testing, (2) lime, (3) mixed fertilizer and (4) nitrogen. Also, it was agreed that although soil fertility would be emphasized, other good agronomic practices would be included.

The next move was preparation of educational materials and tools. Statistical information on soil fertility factors was collected on each county.

Georgia Extension officials wanted to find out just what could be accomplished by intensified educational methods on soil fertility. Here are some of the things they accomplished: Lime use was quadrupled. Soil samples in six test counties increased by more than 500 percent. Amount of actual plant nutrients increased by 17.5 percent. This feature tells how this was accomplished.

County agents did not neglect the demonstration as a teaching device during the campaign.

BUILD YOUR OWN
prefabricated
building
WITH
HOMASOTE
TRUSSED ARCH
CONSTRUCTION
Save time—Save 30¢ per sq. ft.

The trussed arch building is one of the newest construction methods developed for Homasote. With this system, pre-built wall and roof trusses for a 50′ building can be erected and covered with a *weather-proof* Homasote roof—in two days! Homasote "48" Roofing plus fast construction make this the lowest cost permanent structure you can build. Because of the clear span, trussed arch construction is ideal for poultry houses, farm buildings, stores, and warehouses. 5 types of Homasote Trussed Arch construction are available for spans from 24′ to 40′. Use coupon for complete data.

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This Level has 12-Power Telescope and is used and endorsed by Schools, Extension Service and Individual Landowners everywhere.

Accurate, Durable and Complete for Terracing, Ditching Irrigating, Grading, Tile Draining, Running Lines, Turning Angles, etc.

BOSTROM Levels are so simple anyone can operate them by following the direction booklet included with each Instrument. Our No. 4 Contractors' Level and No. 5 Convertible Level feature 16-Power Telescopes. All Bostrom Levels are sold on the guarantee of satisfaction or money back. WRITE TODAY for literature, prices and name of our distributor near you.
BOSTROM-BRADY MFG. CO.
820 Stonewall St., S.W. ATLANTA 3, GA.

Suggestions were prepared for county agents to use in working with bankers, Home Demonstration Clubs, farm leaders, newspaper editors and others. An individual set of about 50 colored slides was prepared for each county. Soil test tubes, bags and information sheets were sent to each county. Plans were developed for direct mail campaigns.

Program Kept Simple

Every effort was made at the county level to keep the program simple, to keep it pointed, to give it importance and to repeat the same educational message again and again through all possible communication media. The first job at the county level was to present the program to the county agricultural program planning committee and to all county technical workers.

County kick-off meetings were then scheduled to announce the program. It was enthusiastically accepted by all people attending these meetings. Newspapers and radio stations gave the gatherings headline publicity. Several newspapers prepared editorials, indicating the program would provide an economic shot-in-the-arm to the agriculture of the area.

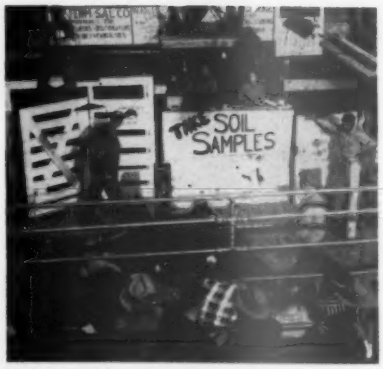
The program was then presented to groups such as bankers, fertilizer manufacturers and dealers, civic clubs, chambers of commerce, ministers, 4-H Clubs, vo-ag classes, Home Demonstration Clubs, and Farm Bureau chapters in each county. The response was gratifying. But even more important, most of these groups agreed to help the agents promote the program.

Information Campaign Planned

Plans were then developed for an intense public information campaign on soil fertility through circular letters, postcards, radio and TV programs, special newspaper releases and other types of promotion. Other methods also were used to call attention to the importance of soil fertility.

For example, Soil Fertility Weeks were declared by city and county officials in certain counties. These declarations were printed in local papers and the events were announced over local radio stations.

Special radio programs were developed. Station WWGS in Tifton devoted an entire week's schedule to soil fertility with five 15-minute programs and nine one-minute spots per day for



Even at cattle auctions, farmers were exposed to the soil fertility message.

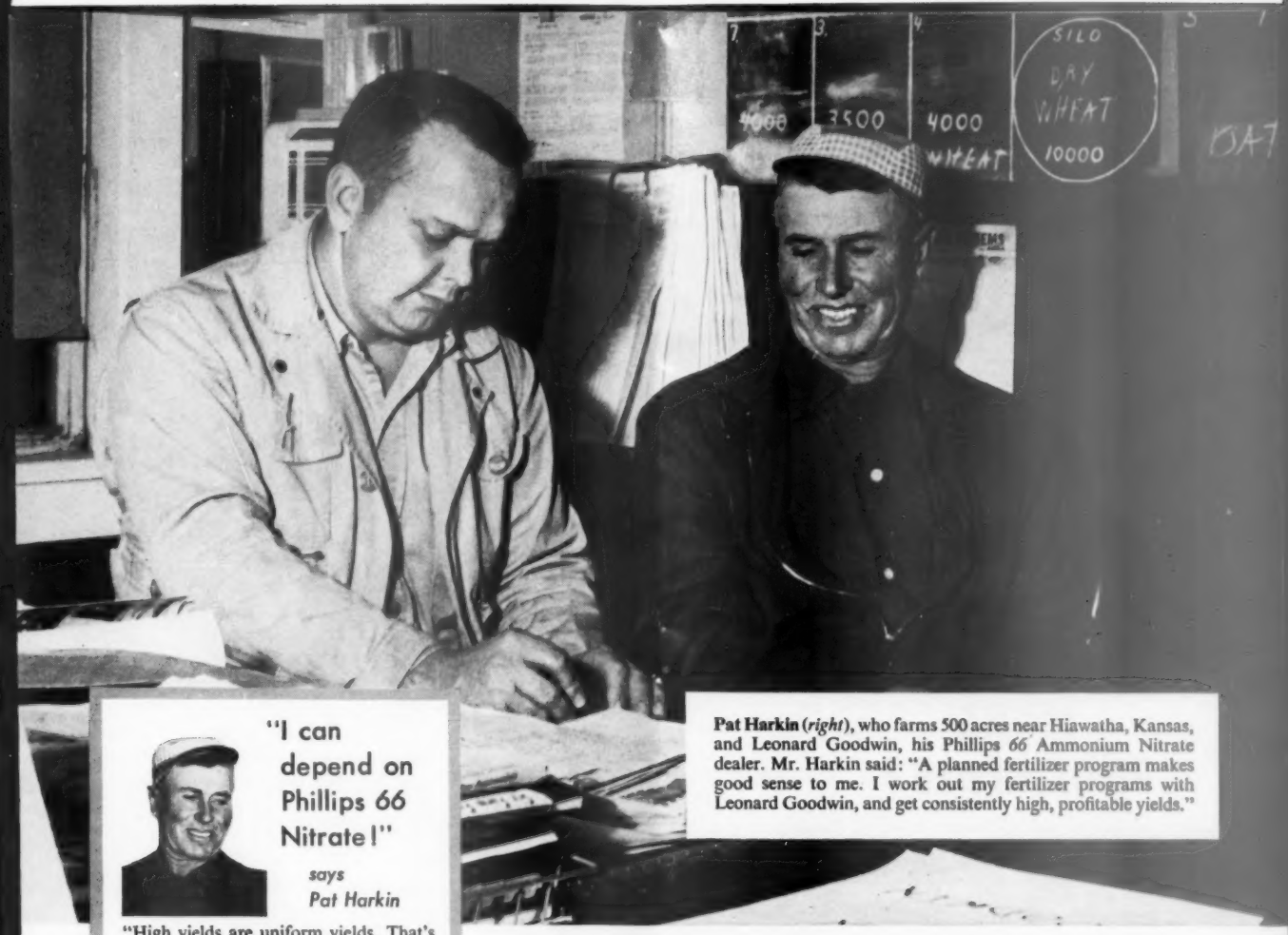
an eight-day period. Also, various slogans like "Soil Fertility Gives Growability" were used. These slogans were even presented during regular disc jockey shows. Station WKTG in Thomasville also featured soil fertility for an entire week.

Station WMTM in Moultrie had a Soil Fertility Day. One of the county agricultural leaders termed this day's programming as "One of the finest things that could have been done to show cooperation between rural and urban people in promoting the Soil Fertility Program." On this 12-hour show, farmers and farm women did all the announcing and put on the programs, with the exception of commercial announcements.

To support this and the other special programs, the radio stations obtained support from many business organizations. In addition to the fertilizer industry, hardware dealers, bankers, jewelry dealers and others indirectly interested in soil fertility aided the radio station. The stations have indicated these special programs will be annual affairs.

Radio Tapes Used

Many radio tapes were prepared by Extension radio editors and agronomy specialists for regular Extension Service programs. Three special tapes, "You and Your Soil," were prepared for each county. Sound effects and several voices — farm leaders, fertilizer dealers, bankers, agronomists, and radio editors — were used in making these tapes. About 150 farm and business leaders in the six counties were interviewed on tapes. About 400 radio tapes on various soil fertility subjects were prepared. Many tapes



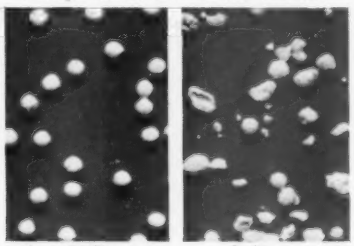
Pat Harkin (*right*), who farms 500 acres near Hiawatha, Kansas, and Leonard Goodwin, his Phillips *66* Ammonium Nitrate dealer. Mr. Harkin said: "A planned fertilizer program makes good sense to me. I work out my fertilizer programs with Leonard Goodwin, and get consistently high, profitable yields."

"I can depend on Phillips 66 Nitrate!"

says
Pat Harkin

"High yields are uniform yields. That's why I depend on Phillips *66* Ammonium Nitrate as my source of nitrogen. It always flows freely; that way I avoid costly skips that reduce yield per acre—and cost me money. Phillips *66* Nitrate is hard, round and dry for easy application—stores well, too."

Both products shown 2 times actual size



New Phillips 66 Ammonium Nitrate — *Ordinary Ammonium Nitrate*

Proof of the difference in these unretouched photographs. And this difference will pay off for you—when you apply Phillips *66* Ammonium Nitrate. You get round, hard, dry and uniform prills that *stay that way* in storage and during application. This means uniform distribution, so that you avoid costly skips that cut your yield per acre. It will *pay* you to ask for Phillips *66* Ammonium Nitrate, with 33.5% nitrogen.

Planned fertilizer program helps him maintain higher yields

Mr. Harkin said: "Both my wheat and corn yields have been substantially improved through the use of fertilizer. Of course, I try to follow other good agricultural practices—but it's the fertilizer that makes all these practices pay off.

"On wheat, I have averaged 40 bushels since starting a program of 13-39-0 applied pre-plant and Phillips *66* Ammonium Nitrate applied as a top dressing. On corn, my average yield is around 85 bushels per acre. I use 13-39-0 and 300 pounds of Phillips *66* Ammonium Nitrate plowed down on my corn.

"Like any other farmer, I'm in the business to make money. That's why my fertilizer programs always include Phillips *66* Ammonium Nitrate."

For your fertilizer requirements, it will pay you to depend on the combination of Phillips *66* Ammonium Nitrate . . . and the friendly assistance of your fertilizer dealer. See him today about a *planned fertilizer program*—using Phillips *66* Ammonium Nitrate and his high quality mixed grades.

"A good name Phillips 66 *to grow by"*

PHILLIPS PETROLEUM COMPANY • SALES OFFICE: Bartlesville Okla., Adams Building

were used over the air several times. Also, the six county agents and assistants conducted a large number of live programs on soil fertility.

Special newspaper editions on soil fertility were prepared by the *Moultrie Observer, Daily Tifton Gazette* and *Thomasville Times-Enterprise*. These special editions varied in length from eight to twenty pages. Letters of endorsement from various states leaders, including the Governor, U.S. Senators, Dean of College of Agriculture, Extension Service Director, State Commissioner of Agriculture, State Farm Bureau President and others were printed in these editions.

To prepare these editions, the newspaper people enlisted the support of many business, farm and civic groups.

The Extension news editor worked closely with the county agents, agronomists and local editors in writing suitable success and information stories for these editions.

In addition to these special editions, newspaper editors in all six counties published soil fertility articles almost on a day-by-day basis.

Special Exhibits Prepared

Soil fertility exhibits and window displays were set up in banks and other places of business. One county agent had a large sign erected in front of the county courthouse with the message "Now is the time to take a soil sample." At livestock sales, cows were run through the auction block with signs encouraging farmers to take soil samples.

Home Demonstration Clubs formed telephone brigades and called farmers to encourage them to collect soil samples. The club members in one county joined forces and set up county meetings and served food to encourage farmers to attend to hear the soil fertility story.

Thirty to fifty farm leaders in different communities were trained to act as soil test information agents for other farmers. These leaders were supplied with soil test bags and information sheets to pass out to farmers.

TV Also Included

Special TV shows were developed on soil fertility subjects. About 45,000 post cards, dealing with soil testing, lime, mixed fertilizer, and nitrogen, were mailed to farmers. Also, 12,000 letters with special art work on nitrogen were mailed in the six counties. Several fertility demonstrations were established on the major crops in the six counties. These demonstrations were viewed on farm tours and used in preparing news articles and radio programs.

Program Brings Results

Civic club members placed soil fertility posters in their places of business. They also assisted in some counties by passing out stickers on soil testing. Bankers mailed out letter inserts on soil fertility and provided advertising time at county-wide basketball games to encourage farmers to collect soil samples. Soil test contests were established among 4-H and FFA Clubs. These groups also set up fertilizer exhibits on soil fertility.

Soil samples taken in the six counties increased from 2,200 to 14,014 — a gain of over 500 percent. Reports from county agents show considerable increases in yields and profits as a result of this program. Here are important causes of these increases and indications of the success of the educational program:

- Use of all mixed fertilizers and materials in the six counties increased from 161,000 tons in 1957 to 177,200 tons in 1958, although 50,000 acres of cotton, tobacco, wheat and corn were taken out of production.

- Use of higher analysis fertilizer increased. Consumption of 5-10-15 increased from 3,027 to 19,937 tons. Use of 4-12-12 increased 10 percent and 24 percent more 0-12-12 and 0-14-14 were used. Amount of actual plant nutrients increased 17.5 percent. Use of non recommended grades such as 4-8-8 and 4-8-6 dropped from 25 to 15 percent of the total.

- About 3,000 more tons of actual nitrogen were used in 1958 than in 1957.

- Lime consumption was three to five times greater.

County agents who sometimes despair over the slowness with which new farm practices are adopted can take heart from this story. Agents in these six counties are enthusiastic about the way this program was received and carried out. It has meant much to them in advancing their work and the Extension program with the people they serve. End.

Are these methods

BETTER... MORE PROFITABLE?

When you get the *facts*, we believe you'll agree that the use of Grace Agricultural Grade Crystal Urea for foliar application and the use of Grace Micro-Prilled Urea Feed Compound as a *low-cost* protein supplement in cattle feeds are *better and more profitable methods* for today's farmers and ranchers.

How do you get the facts? Easy. Grace Chemical has all the facts for you, in these free booklets:

The FOLIAR APPLICATION Booklet tells why spraying is better; how the farmer saves time, labor, equipment; and how to apply Grace Agricultural Grade Crystal Urea to fruit crops and vegetables.

The FEED COMPOUND Booklet tells what Micro-Prilled Urea Feed Compound is; how it cuts feed costs, improves feeding value and increases efficiency of the entire ration; and how to prepare simple formulas for using it as a protein equivalent.

Write for your free copies of both these useful, informative booklets. And if you want additional copies for distribution in the field, we'll gladly supply you free of charge.

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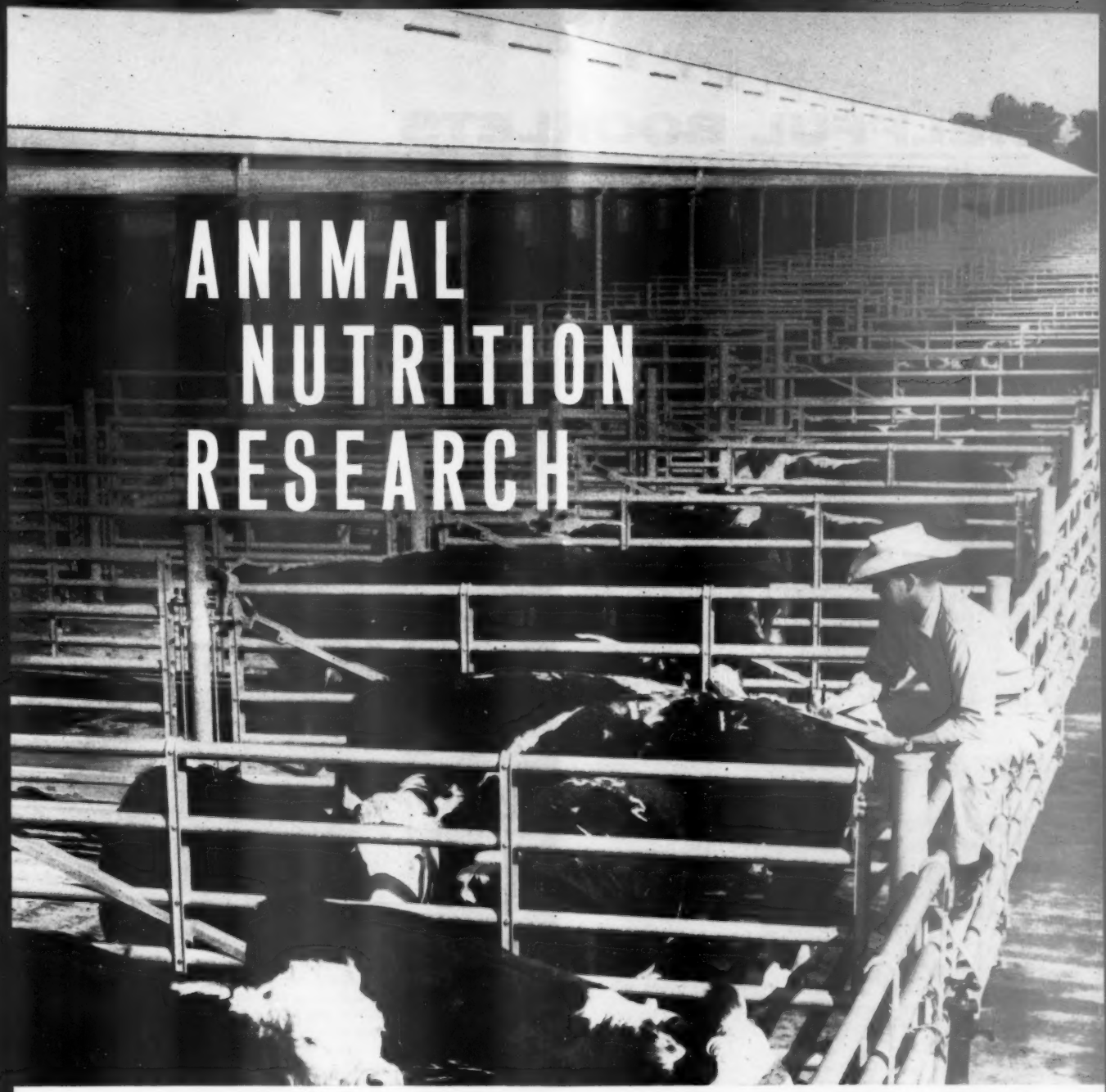

More fuel in each feed bag

The Lilly aim in animal nutrition research is to pack more "fuel" into each feed bag—to put more quality food on the table at a lower farm-production cost. To do this requires carefully designed and conducted experimentation.

Available to help at the Lilly Agricultural Research Center is a specially constructed feed mill to mix experimental rations. With the close control over test rations possible, nutritionists get their answers quicker.

In nutrition research, treatments are often replicated four times; in poultry as many as five times. Swine with the same breeding are used in experiments to minimize performance differences arising from heredity variability.

Hundreds of synthetic chemicals and antibiotics come under the scientific scrutiny of Lilly nutritionists yearly. Current emphasis is on feed additives that promote weight gains, save feed, and improve meat quality.

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HOW TO ORDER

1. **SELECT** the booklets you want
2. **CIRCLE** the corresponding number on the postal card
3. **FILL IN** your name and address
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36—Educational Chart

"How to Use a Hand Saw" is the title of an educational chart available to agricultural leaders from H. K. Porter Company, Inc. Send for your free copy of this wall chart.

37—Utility Harvester

A colorful brochure from Papec Machine Company gives complete details about their new flail-type utility harvester and crop blower.

38—Quality Liquid Feed

A brochure available free to agricultural leaders from U. S. Industrial Chemicals Company tells all about Morea, a liquid supplement that saves labor and builds profits.

39—Soluble Fertilizer

You are invited to send for a free copy of Miller Chemical & Fertilizer Corporation's brochure, "Nutri-Leaf Soluble Fertilizer".

40—Irrigation Sprinklers

A colorful booklet available free to agricultural leaders from Buckner Manufacturing Company, Inc., gives a complete listing of their agricultural "rainers".

41—More Mileage From Silage

"How to Get More Mileage From Your Silage" is the title of a booklet which explains the use of a silage culture concentrate. It is available free to agricultural leaders from Silo-Zyme.

42—How to Use Plastics

"How to Use Polyethylene Film on Your Farm" is the title of an excellent booklet available free to agricultural leaders from Monsanto Chemical Company. You will be pleased with this booklet.

43—Booklet of the Month

This book contains 392 pages of information on vertical pumps, the most complete coverage ever compiled by a manufacturer. Contains a wealth of information on all phases of the business, including technology, applications, engineering, etc. This book originally sold for $10 per copy but is now being offered free, in limited quantities, to qualified professional people, in connection with the company's 50th anniversary.

44—Haymaking

The International Harvester Company would like to send you a free copy of their booklet, "How to Cut Curing Time and Boost Feeding Value of Your Hay". Order your free copy of this helpful booklet.

45—Classroom Projector

A brochure available to you from Graflex, Inc. tells why the new School Master 750 is the most versatile of all classroom projectors. Send for your free copy of this brochure.

46—Sprayer Catalog

If you would like a copy of D. B. Smith & Company, Inc.'s sprayer catalog, circle the postal card number above. They'd be happy to send you a copy of their catalog No. 71.

47—Judging Herefords

You are invited to send for free material on Hereford judging from the American Hereford Association. This material includes illustrated judging suggestions and score cards for Hereford bulls and fat steers.

48—Veterinary Booklets

Armour Veterinary Laboratories has a brochure explaining Armidexan — an injectible iron dextran complex to prevent anemia in baby pigs. Circle the postal card number above to get this free brochure.

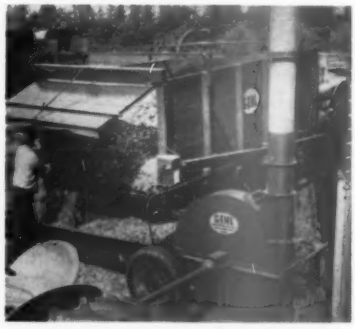
49—Using the Hand Level

Bostrom Brady Manufacturing Company would be pleased to send you a free copy of their booklet on how to use the farm level. Order your copy today.

50—Grain Dryer

Field drying of corn can cost you 10 bushels an acre. Why gamble on it when you can have sunshine at the touch of a button. Send for John Deere's illustrated booklet on the 458 grain dryer.

51—New Forage Box



A low-cost rear unloading forage box has been added to the 1959 equipment line of Gehl Bros. Manufacturing Com-

pany. Circle the postal card number above to get further information.

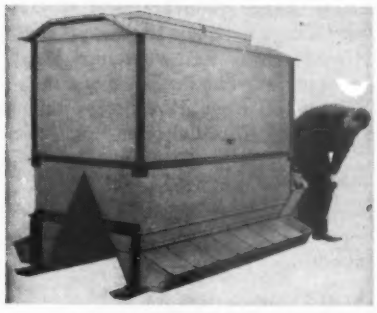
52—Herringbone Milking System

The principles of the herringbone system are explained in the booklet available free from Farmer Feeder Company. Order your free copy right away.

53—Wire Winder

Free literature available from H. D. Hume Company tells how a wire winder attachment is used with your tractor to roll or unroll barbed wire. Order your copy now.

54—Bulk Hog Feeder



This bulk hog feeder from Leach Manufacturing Company may be purchased with or without cover for use under sheds. For more information on this 16-hole feeder, circle the postal card number above.

55—Work Bench Plans

Complete plans for a sturdy farm workbench and tool rack are available free to ag leaders from Masonite Corporation. Circle the postal card number above to get your free plans.

56—Cotton Defoliation

Pennsalt Chemicals would like to send you free copies of their booklets on defoliating cotton with PENCO De-Fol-Ate.

57—Farm Engines Booklet

Ag leaders are invited to send for a free copy of Continental Motors Corporation's power booklet. This is a complete listing of their farm engines.

58—Selecting Movie Film

A free booklet from Eastman Kodak Company tells how to select the proper 16mm. movie film for your camera.

59—Treat Broiler Diseases

Abbott Laboratories invites ag leaders to send for a free copy of their brochure on the use of Gallimycin-TF for the prevention and treatment of broiler diseases.

60—How to Select Beef

This eight-page booklet designed for the beginning buyer of beef is available free to ag leaders from Colorado State Advertising and Publicity. Illustrations show different cuts of meat, and hints are given on roasting, broiling, and other methods of cooking beef.

61—Keep Flies Away

A product that repells flies offers many possibilities for farmers. For complete information on this fly repellent, Tabutrex, circle the postal card number above. Glenn Chemical Company would be happy to send you further information.

62—Clear Muddy Ponds

The United States Gypsum Company wants you to have a copy of their booklet on clearing muddy ponds. It is yours if you will circle the postal card number below.

63—Guernsey Handbook

This reference handbook for vo-ag teachers and county agents is available free in single copies. Additional copies are 25 cents each. To get your free single copy, circle the postal card number above.

64—Make Buildings Last

The important points to consider in the construction of farm buildings are included in a booklet available from the West Coast Lumbermen's Association entitled "How to Build Farm Buildings That Last Longer". Ag leaders are invited to send for a free copy.

65—Pre-Harvest Spray

A pre-harvest spray that gives quick dehydration of the crop plant is described in the booklet, "Sinox General", available free from Standard Agricultural Chemicals, Inc.

66—Fertilizer-Insecticide Mixtures

A colorful 8-page brochure published recently by Velsicol Corporation, describes the latest methods of applying fertilizer mixed with an insecticide. Order your free copy of this helpful booklet.

67—Survey Instrument Guide

Available free to ag leaders is a handbook on practical use of levels and level transits. The David White Instrument Company would be pleased to send you a free copy of this 34-page handbook.

68—Kari-Kool "Pup-Tank"

This new junior-size tanker is called a pup-tank because it is considerably smaller than conventional milk transports. This tank has a capacity of 800 gallons. For complete information from Dairy Equipment Company, circle the postal card number above.

69—Farm Reference Book

A handy booklet from Sinclair Refining Company covers such subjects as water control, wheel track planting, animal health, kitchen tricks, useful weights and measures, etc. You will want a copy of this booklet for reference.

70—1959 Insemikit Catalog

Leading brand names and the latest in agricultural equipment make this Insemikit catolog a valuable and handy source of supply. A copy is yours for the asking.

The Community Fair Booth - - Traditional or Modern?

by Dwight W. Fairbanks

● GET SET FOR the perennial question: What are we going to do with our booth at the fair this year?

If you are helping an agricultural group plan its fair booth, suggest they settle this question first:

Traditional or Modern? The time-honored community fair booth is a geometric pattern of fruits, vegetables, sheaves, stalks, canned foods and handiwork. This is the traditional way to "decorate" a booth.

The modern approach is to select a single idea and plan the booth to visualize and support that idea.

Some groups cling to the traditional because their booth is also their land-products display, each member of the organization can display something he has made or grown, and the traditional booth retains the flavor of the old-time county fair. The modern approach, some say, smacks of commercialism.

Those who swing to the modern find their booth better competes with the commercial exhibit for the eyes and ears of the crowd. Developing a single idea, they find, taxes the imagination and limits the number of folks whose produce and skill can be displayed. But their reward is a booth that is more likely to attract attention and be remembered longer.

Traditional or modern? Is your booth a place to display the biggest pumpkin, the finest needlework? Or is your booth a medium through which you arouse the fair-goer's interest in your organization, your community, your farm enterprises?

Let the group decide this question. Then consider each of these steps in turn:

Step 1: Whom are we talking to?

Who will see our community booth?

Will the majority be city folks? Or mostly rural people?

Is there any reason for planning our booth to appeal to a particular kind of viewer . . . homemakers . . . farmers . . . prospective FFA or 4-H Club members?

Step 2: What do we want to tell them?

Our only purpose for building a booth is to tell about ourselves or our products. So our booth must have a message. Otherwise it will just fill space.

What do we want our booth to say to people walking by?

Let's assume we are the Fairview Grange and we decided in Step 1 that our booth should appeal to consumers of products our Grange members produce.

Members of our Grange grow lots of things. Dairy, poultry and apple production are the major enterprises.

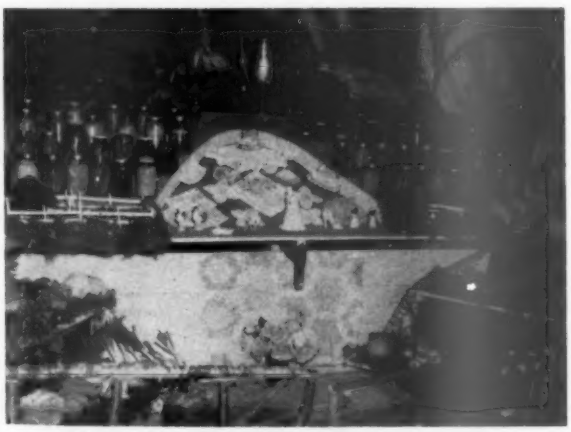
But let's not talk about all three. How about taking apples this year, and plan to feature the other enterprises in years to come?

Why do we want to limit our message?

If we stick to *one single subject* our message will be simple, direct, and more convincing . . . it's also easier to design an exhibit about one specific subject.

Step 3: Putting our message into words

We've decided what to talk about — apples — and whom to talk to — consumers — so now let's put our message into words.



A "traditional" fair booth. What did the average fair-goer learn about the organization or community which sponsored this booth?

How about, "We grow apples for the nation's fruitbasket" . . . or, "The apples we grow bring health to you."

This is what we want our community booth to say, remember. These words need not appear as part of the exhibit.

But once we put our message into words, we can visualize that message. We are ready to throw our imaginations into gear and come up with an "idea" for our community booth.

Step 4: Crystallizing the "idea."

Let's say we decided on this message: "Eat our apples for health." We turn our imaginations loose. After swapping suggestions back and forth someone comes up with this idea:

How about using the theme, "An apple a day keeps the doctor away?" Our booth would be a huge calendar showing every month of the year. Each month would be labeled, and instead of numbers, we'll place an apple for each day of the month. We could have apple trees for the background.

Step 5: Sketch a plan.

Time taken to sketch the "idea" for our community booth will pay off in time and materials later on.

The sketch is the plan which guides us in building the booth.

Let's sketch different possibilities before settling on the one the committee likes best. We won't need an artist to make a sketch. Stick figures for people, circles, squares, and other simple outlines are enough to indicate where everything is to go in the booth.

"I wasn't raised up with mules."

This was the comment made by Orville Walker to explain why he didn't measure up to past NACAA presidents in physical stature. But Orville has proven that height has little to do with leadership ability.

Thirty years of inspirational leadership to rural youth and farm people has made Orville F. Walker one of the outstanding agricultural agents in the nation. The small, quiet man has become a "strong man" by doing and by showing.

Serving now as one of the hand-picked Extension agents leading the experimental township advisory program in Michigan, Walker is using the same methods which brought him success as a district 4-H Club leader, assistant state 4-H Club leader, and county agricultural agent.

After graduation from Michigan State Normal in 1927, Walker started teaching agriculture and science in a small community in northern Michigan.

After several years of vocational agriculture teaching, Walker became the district 4-H Club leader for several counties in that area. He used his farm as a demonstration of how soil could be built up and become productive. Farmers and 4-H Club members came to see the results. Other agents, agricultural teachers, and soil conservationists used Walker's land to show what could be done. The program became known as the "Walker Quickie" and has been adopted as an accepted soil conservation service payment practice for that area by the Agricultural Stabilization and Conservation Commitee program.

As agricultural agent in Kalkaska county, he was called on to speak over a wide area of northern Michigan to explain the "Walker Quickie" as a soil building program.

In 1953, Michigan State received from the Kellogg Foundation a fund to be used experimentally to determine what might be done to speed up the application of research to the soil. Walker's success and leadership made him a logical choice as one of the five agents selected to do this special job. He had proven his ability to work closely with farm people; he had the know-how to apply scientific knowledge to bring about better production of poor soil. Administrators also wanted one of these townships to be in an area not recognized as "rich agricultural land."

Walker proved his organization ability in getting together a group of farmers in the corner of three townships to make up the Tri-Township Extension Association. At his first annual meeting he was able to get out nearly 100 percent of the members. This was done by using every mass communication technique available and through personal contacts. He made it a "family night" so the young farmers could bring the youngsters and special arrangements were made for movies for the children in another room during the business meeting.

This leader among Michigan and United States agricultural agents has shown that quiet leadership can bring others to see the value of recommended practices. Once they see these practices bringing results, farmers and rural youth apply them to their own land. End.

Dr. Salsbury's Laboratories—
the Scientific Approach to Poultry Health Problems

WORMAL

the complete poultry wormer

TAKES THE GUESSWORK OUT OF WORMING

No doubt you've often wondered why so many growers try to make money feeding wormy birds. One likely reason is the difficulty of maintaining adequate sanitation; another reason is that growers are confused about the different kinds of worms and the wormers needed to control them. They don't know how easily they can rid their birds of all 3 major kinds of worms —**tapeworms, cecal worms** and **large roundworms**—by using Dr. Salsbury's WORMAL, the only *complete* poultry wormer on the market today. Yes, you can recommend it with confidence—there's no costly guesswork or confusion with WORMAL. It reinforces sanitation, cleans up the flock. WORMAL gets worms the other wormers miss!

- **Effective**—Removes up to 100% of large roundworms, cecal worms and all damaging species of tapeworms.
- **Easy to use**—Granules to mix in feed; Tablets for individual treatment.
- **Sure**—One standard dose for chickens and turkeys of all ages.
- **Economical**—One extra egg pays for at least two treatments.

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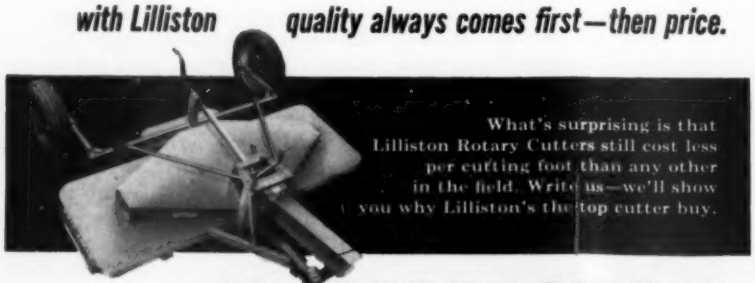
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More important than a fancy, finished drawing is a sketch that puts our ideas on paper and helps us plan what we'll need to carry out the idea.

But before the plan takes final shape, let's be sure —

- Of the dimensions of the booth
- That materials we plan to display are available
- That any art services we'll need are available, and
- That the plan will fit our budget.

Designing the Booth

Start with a center of interest. It's the heart of your message. Every other object in the booth is secondary to the center of interest.

Choose a color scheme; two or more colors that go together and are appropriate to the subject.

Arrange the objects in your booth so the design is balanced — neither lopsided nor top-heavy.

Stick to one idea; don't wander away from the message. This is unity of purpose. Choose objects to display that go well together; not only colorwise, but in size and shape. This is unity of design.

Finally, keep it simple. The less in the booth, the more likely the viewer will see what you really want him to see. Before putting an object into your booth, ask yourself "Does it help tell the story?"

What are we going to do with our booth at the fair this year?

Suggest to your group that they use the booth to convey a message about themselves, their community, or their product. This modern approach takes more planning, but the time and effort will pay off. — End.

COPIES AVAILABLE

This article was adapted from "Planning a Community Fair Booth," a Pacific Northwest Cooperative Extension Publication. Residents of Washington, Oregon, and Idaho may obtain a single copy free from their county extension agent. Single copies available to residents of other states at 25 cents by writing Bulletin Clerk, Oregon State College, Corvallis.

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Now you can husk part of your corn crop, shell the rest—*both* with Oliver's new husker-sheller. You invest in just one basic unit plus an economical husker, sheller, or both. That's Oliver's new TEAMED-POWER for modern corn farming—designed and built for the man who's stepping up to the 100- to 150-bushel class.

NEW GATHERING UNIT—saves your crop and saves you. It proved its mettle in capacity and easy handling—tops in safety, in shelled corn savings, and best at picking up the down corn. But now the story is even better. Oliver's new unit shells less, wears longer, services easier.

THE HUSKER-SHELLER—two easy-change units, design-matched to suit your fondest production dreams. The husker: Oliver's famous valley design with eight 37-inch rolls, overhead fan, full-length corn-saver, and extra-wide wagon elevator. The sheller: the all-new, slow-speed, 1-section cylinder that practically eliminates cracking.

Now you can be practical and modern with this new Oliver—TEAMED-POWER'ed for your 100-plus yields. Ask us for a demonstration on your own farm. "Pay-as-You-Produce" financing available.

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See Your OLIVER DEALER and See

COUNTY AGENT NEWS

by C. N. McGrew — County Agent, Mansfield, Ohio

Shetland Pony Project

Four-H'ers in Canadian county, Oklahoma, now can enroll in a special new project — working with Shetland ponies.

Nine 4-H club members have joined the club. The ponies are graded yearling fillies and will be trained, groomed, and cared for to bring top prices at the show and sale next year.

Dr. T. L. Pike, veterinarian, will serve as the adult leader for the new project — the first of its kind attempted in Canadian county.

Industry-Extension Venture

A joint industry-Extension venture between the Wichita Livestock Market Foundation and Kansas county agents gave a large number of livestock producers their first inside view of a terminal market.

Nineteen tour groups with a total of 515 people from 16 counties visited the market this year.

The tours started with a trip through the stockyards. New facilities and procedures of handling were explained. Time was allowed for questions and answers regarding the method of selling and buying.

Livestockmen were guests at the Stockyards hotel at noon with the Wichita Livestock Market Foundation as host.

After seeing the stockyards in the morning, the afternoon tour included two packing plants. The newest methods of "on the rail dressing" carbon-dioxide demobilzation and grading were seen. Only a small percent of the visiting stockmen had ever toured packing plant facilities before.

In summarizing the value of the tours it was stated that, "We believe these tours are an example of joint industry-Extension cooperation where many mutual benefits can be derived. We are looking forward to many more pleasant experiences in the future.

Arkansas—Not Virginia!

In the June issue of Better Farming Methods an item in this column told about two wonderful local leaders — Mr. and Mrs. Pate Dillard.

According to our article, they were from Marion county, Virginia. However, we're pleased to report that they are still in Marion county, Arkansas, where they have been all along. Pardon the error.

Agents Study Communications

District spring conferences this year opened the door to better communications for Ohio County Extension Agents.

In three of Ohio's four district meetings, agents studied effective ways for "getting through" to the people. For two and one-half days they heard discussions on how to communicate, both on a personal and a mass basis. They talked about writing personal and circular letters, news articles, feature stories, and columns. They held practice writing sessions and discussed the merits and demerits of each other's efforts. Leading the discussions were the director of Ohio State's School of Journalism and staff members of Extension's Office of Information and Educational Aids.

Arkansas Agents Go To School

Thirteen Arkansas county agents recently completed a 17-week course on weed identification and control at the University of Arkansas Graduate Center.

In this course the agents learned many of the fundamentals of weed control. Of most importance was the

Dr. A. M. Davis, Associate Professor, University of Arkansas, discusses a weed with two agents enrolled in the course. They are: Albert Swaty, associate agent, Lonoke county (center), and Rutledge Ford, assistant agent, Jefferson county.

County Agent Convention Dates: Sept. 6-10, Kansas City

latest information on the various chemicals agents are recommending. "Because of the new information I received from the course", reports Prairie County Agent Vernon Wills, "I will be able to do a better job of advising farmers on problems of weed control." He thinks every county Extension agent would profit by taking a course such as this.

Duroc Judging Pictorial Correct Placing 4-2-1-3

This class of Duroc market barrows divides itself easily into two pairs. To top the class we have a very outstanding individual, being long, smooth, well-balanced, clean, and lending the appearance of muscle and firmness. No. 4 is hammed down well toward the back and bulging from side as well as rear views, couples smoothly at the loin area from the ham into the loin and side, and carries a strong arch of top, which blends nicely into a firm, neat shoulder, neck and jowl.

The height of tail set looks better on No. 2 as it appears in the side view. However, No. 4 was placed over No. 2 because of heavier more bulging ham, which is in evidence from both views. Also No. 4 is deeper in the chest which gives him a stronger constitution — thus a more efficient convertor of feed.

No. 2 is placed over No. 1 because he is more symmetrical, cleaner headed, firmer fleshed, tighter wound, and is particularly more desirable in his side view.

No. 1 over No. 3 is considered a close placing. No. 1 is a longer sided, more symmetrical barrow, with a longer leveler rump, higher tail set, and more bulging ham. — John W. Lehmann, Pleasant Plains, Illinois.

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Sunbeam STEWART CLIPMASTER ANIMAL CLIPPER

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Sheep shearing attachment converts animal clipper into Shearing Machine which has year 'round use for the farm flock. **No. 31A,** complete with cutting blades **$31.50.**

No. 31A

Blades for Clipmaster Animal Clipper

Bottom Clipping Blade. Individually packed. Catalog **No. 84AU. $3.15.**

Top Clipping Blade, Individually packed. Catalog. **No. 83AU. $2.65.**

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FUNK BROS. SEED CO., BLOOMINGTON, ILLINOIS

EDITORIAL

by Frank Waddle

Let's pretend.

Yes, let's you and I pretend for a moment that we are sitting under a big oak tree atop a high hill, overlooking a peaceful small town. Down below we see many neat houses, sprawled around several small business establishments.

Out farther from the town we see several small clusters of buildings, polkadotting the landscape. These are the farmsteads. They stretch across the horizon to another small town, barely visible, 20 miles across the prairie.

Let's focus our attention for the moment on one of these farm units. We are impressed with the efficiency that makes these farms the most productive in the world. But wait, here in this vastly efficient operation is an area of land standing idle, producing nothing. Of course, upon closer inspection, we do see that it is the poorest soil on the farm. But still, why is it lying idle?

We don't have any reason to know from our viewpoint on the hill that this land is idle because the farmer is being paid by the government "not to produce" crops on this land. Neither do we know that being paid not to produce on these acres gives the farmer more time to coax even higher performance from the land still in production.

What a revelation! Do you mean the folks in the small town we see are using part of their wages to pay their rural neighbor not to produce food for their tables?

Let's shift our attention from the farmstead in the country to the main street of the small town. There, on the outskirts, we see Long's trucking company. After observing their operations we notice two trucks sitting idle behind the service shop. But, using the information we learned about the farming operation, it's easy to explain why Mr. Long chooses to let two of his trucks stand idle while the other four trucks in his small fleet are running 24 hours a day. He's actually making money with those idle trucks, we surmise. The government is paying him not to haul the produce that it is paying the farmer not to grow. Not a bad arrangement. After all, they were the worst trucks he had, and he was about ready to junk them anyway.

At this stage in our little make-believe game we're about ready to jump up from our comfortable spot under the old shade tree and dash down into the valley. Someone has to protect the ordinary wage earning citizens of this small town. How can they be gullible enough to spend part of their earnings to pay the farmer not to produce food and then turn around and kick in another share to pay the trucker not to haul it?

Again, from our hilltop vantage point, we are not able to see all the facts. The citizens of this hypothetical town have truly found Utopia. You see, they are also being paid not to buy the food that the farmer is being paid not to grow, and the trucker is being paid not to haul.

This brings on a degree of prosperity undreamed of by citizens in real-life towns. They're making money two ways. First, by not buying as many groceries they have more money to buy other manufactured products. And, of course, the second income boost is added when they get paid for not buying.

What's more, this arrangement eliminates all health problems associated with overeating. Thus, folks pay less for doctor bills, live longer, and have more money to spend.

Of course, there are many other reasons why prosperity is booming in this Utopia. The seed dealer is getting paid not to sell seed, the tractor dealer not to sell tractors, the fertilizer dealer not to sell fertilizer, ad infinitum.

Oh yes, one factor we almost overlooked; and it's such an important one, too. The workers are paid not to work. And, in real good times some of them are paid not to work at two different jobs.

Being paid not to work is not only good for the wage earner, it is also a boon to the employer. It eliminates much on-the-job training. The problem of finding skilled workers is eliminated — most anyone can be expert at not being a bookkeeper, for example. Then the working force can be adjusted to meet employment situations as they arise.

Not only do workers in this town enjoy increased benefits from this system, it also goes back up the production line. Factory workers are paid not to produce tractors; steelworkers not to produce steel for these tractors; miners not to mine ore. And so it goes, from one industry to another, so that everyone has more leisure, less work, and industry thrives on not producing.

Oh yes, many of you will be interested to know that in this area the county agent is paid not to advise farmers and vo-ag teachers are paid not to teach.

This is fine — for you. But as I sit here under the tree I wonder when editors will be paid not to write editorials? Maybe, for some of us, the time is nearer than we think.

CORNELIUS

"I'll go in here and you go around and make sure he doesn't sneak out the back way . ."

FIELD MEMO

from FORT DODGE®

PARTNERS IN DISEASE PREVENTION

Whether an animal was saved or lost used to be a farmer's main concern. Today, thanks to the fine educational job done by county agents, colleges and extension workers, the high cost of disease, parasites and unthriftiness in terms of production and income is well-appreciated. One of the bright spots in the animal health picture is the increasingly effective working partnership that has been developing between the farm advisor and the veterinarian. This kind of cooperation in spotting, diagnosing and treating disease can mean a great deal in money to America's livestock raisers.

BE ALERT TO 'LEPTO' OUTBREAKS

Leptospirosis strikes both swine and cattle, causing heavy losses through unthriftiness, abortions and deaths. It occurs most often during summer and early fall and spring months, when heavier rainfall and standing water enable the disease to spread. Once "lepto" hits, it may move rapidly from animal to animal. A high incidence of abortions among cattle or swine in an area may be the first indication the disease is present. Suspected cases should be reported at once to local veterinarians.

The best protection against leptospirosis is to have animals vaccinated every six months. Fort Dodge Leptospira Pomona Bacterin will, within 7 days, stimulate an active immunity which will persist for 6 months or longer.

RABIES PROTECTION IMPORTANT ON FARMS

Rabies is a fatal disease that has been known to infect many farm animals including cattle, swine, sheep, horses, and even chickens. The primary carrier of rabies, however, is the dog, and farm dogs are in particular danger due to their greater chance of contact with wild-animal rabies-carriers, such as skunks, squirrels and foxes. Rabies can be prevented through vaccination. It is a good idea to suggest to farmers in your area to have their dogs vaccinated against rabies by a veterinarian. Such vaccination is inexpensive, does not hurt the dog, takes only a few minutes.

TRANQUILIZER HELPS FEED-LOT CATTLE

Use of Promazine to calm down nervous cattle penned in feed-lot areas has proved a real aid to livestock breeders. Often, when cattle are taken from range country and confined in pens, they tend to go off feed, become wild and restless. This results in weight loss and injuries which cause docking.

A dose of Promazine, administered to cattle about to be shipped into feed-lot areas, has proved extremely successful in lessening nervousness, protecting animals against disorders during shipping, and helping them to adapt to new surroundings.

ACCIDENTAL POISONINGS OF FARM ANIMALS COSTLY

An estimated $5 million loss is chalked up annually to accidental poisonings of livestock. Most common is lead poisoning, caused by animals licking newly-painted buildings or grazing in areas sprayed with lead compounds. Farmers should be cautioned to keep chemicals and "empty" drums where animals cannot get at them. If poisoning occurs, a veterinarian is best able to administer an effective antidote.

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